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THE PROBLEM OF THE BRITISH BALANCE OF PAYMENTS

The Balance of Trade and the Problem of Convertibility

The trend of foreign trade showed on the whole unexpectedly rapid, improvement during 1946. (Table I).

The improvement in the first six months was particularly impressive. The volume of manufactures expanded more than 100 per cent, from 56 (1938=100) in the 4th Quarter of 1945 to 117 in the 3rd Quarter of 1946. This was some 36 per cent below the target which the Government set itself (or to put it differently, the volume of exports—disregarding any deterioration of the terms of trade—would have to expand over 50 per cent from its present level to reach that target). But rapid strides had been made. In the 4th Quarter the improvement slowed down considerably—and the coal distribution crisis destroyed any hope of the original target being reached in 1947. Even the more modest target for the volume of exports of 140 per cent of pre-war by the end of the year 1947, *i.e.* an average quantum of 120 per cent, put forward by the Economic Survey of 1947, is unlikely to be reached. The crisis had cost Britain some £mn100–150 in exports.

The relatively favourable balance of foreign trade for 1946 was the result partly of our failure to obtain vitally needed raw materials and foodstuffs in the required quantities and partly of the fact that the U.S. rise in prices had not had its full effects on import values. As a result of this failure to obtain imports, an almost twenty per cent increase of their volume seems to have been contemplated by the original estimates for 1947, which envisaged £m.1450 of imports. This volume is not now likely to be achieved. But prices in the U.S., if no longer rising, have not shown an appreciable downward trend. Hence the original money estimate might be too low for a lesser quantum of imports. Imports in the first quarter of this year reached £364 millions, equal to the annual rate estimated. It cannot be pretended that these imports were sufficient to enable the broad industrial restocking which is necessary. Indeed, the Board of Trade estimates that the volume of imports has fallen from an average of 68.6 per cent of 1938 in 1946 to 67 per cent in the first quarter of 1947. This indicates the need for a substantial further increase of the volume imports, if there is to be no fall in the standard of life or in the speed of reconstruction, at a time when the gap between exports and imports is already extremely high. The dilemma facing the country is shown by the obvious inability of the Government to reduce imports, despite the threatening exhaustion of our foreign reserves. A comparison of the pro-

TABLE I *Imports and Exports*[1]

		Total imports	Exports of U.K. produce	Re-Exports	Volume index (1938=100)	
					Retained imports	Exports
		£ million				
1945	April	97.8	36.2	8.6	66.5	48.1
	May	103.7	28.7	4.8		
	June	112.4	38.9	3.4		
	July	97.3	33.0	4.3	61.7	46.2
	August ...	98.8	37.1	6.5		
	September ...	78.7	30.0	2.5		
	October ...	69.6	43.1	5.1	53.0	55.8
	November ...	90.2	31.1	4.1		
	December ...	74.9	46.4	3.4		
1946	January ...	96.2	57.2	4.2	63.2	83.9
	February ...	79.4	60.1	3.7		
	March	103.8	67.8	4.6		
	April	98.3	70.9	3.8	68.7	97.7
	May	116.4	86.1	3.6		
	June	102.8	65.2	3.7		
	July	101.1	92.4	4.4	70.1	103.9
	August ...	121.0	77.9	4.9		
	September ...	106.1	71.2	3.8		
	October ...	127.4	91.1	4.0	72.2	110.8
	November ...	124.3	91.2	4.8		
	December ...	117.0	82.9	5.2		
1947	January ...	121.4	91.2	5.1	66.7	100.5
	February ...	112.5	76.0	6.6		
	March	130.0	82.6	6.4		
	April	147.1	82.7	6.7		
	May	153.2	89.7	7.1		

[1] Monthly Digest of Statistics No. 11, June 1947. Table 101, p. 89.

visional estimates published in the Survey[1] with the revised target as stated by the Chancellor of the Exchequer on July 3rd, 1947, clearly brings out this point. (Table II).

The overall deficiency in our visible trade, despite its magnitude, still does not express accurately the difficulties of the British problem. A further analysis shows a dangerous shift in our export trade from products the demand for which is more stable to goods which are notoriously vulnerable to any change in income.[2] Secondly, the overall balance veils the emergence of export surpluses with 'soft' currency countries accompanied by much greater deficiencies in the trade with 'hard' currency areas. This tendency has been considerably accentuated by the rule of 'non-discrimination', which prevents the concentration of the import of 'non-essential' goods—needed to give material incentive to effort (and to mop up purchasing power) to 'soft' currency areas. The 'monetary' unbalance in our trade is shown in Table III.

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[1] Cf. *The Times*, July 10, 1947.

[2] Cf. Table I,

TABLE II. *Import Programme*

	Original for 1947	*Revised June 1947 June 1948*	*Difference*
		In £million f.o.b.	
Food, etc.	725	840	+ 115
Raw materials, etc.	525	640	+ 115
Machinery and equipment	60	55	— 5
Petroleum	55	80	+ 25
Tobacco	50	40	— 10
Consumer goods	35	30	— 5
Films	18	15	— 3
	1468	1700	+ 232

TABLE II. *United Kingdom Trade*
(% age of total value)

1. *Imports*

	Year 1938	Third Quarter 1946	Fourth Quarter 1946	First Quarter 1947
Hard Currency Areas :—				
U.S. Dollar Area	14.18	18.81	19.17	21.80
Canada and Newfoundland	8.84	13.78	15.37	12.39
Argentina	4.19	6.15	4.09	7.78
Other Latin America	2.87	4.74	3.78	2.88
Sweden, Switzerland, Portugal, and Portuguese Colonies	3.91	3.72	3.47	2.78
Total	33.99	47.20	45.88	47.63
Other Areas :—				
Sterling Area :				
British	31.56	32.71	32.92	33.44
Non-British	1.61	1.67	1.34	1.33
European Countries and their colonies not specified above	29.68	16.80	17.28	16.29
Rest of world	3.16	1.62	2.58	1.31
Total	66.01	52.80	54.12	52.37

2. *Exports and Re-exports*

	Year 1938	Third Quarter 1946	Fourth Quarter 1946	First Quarter 1947
Hard Currency Areas :—				
U.S. Dollar Area	6.76	5.29	5.89	7.72
Canada and Newfoundland	4.61	3.40	4.00	3.50
Argentina	3.70	2.44	2.33	2.33
Other Latin America	2.01	2.34	2.55	2.54
Sweden, Switzerland, Portugal, and Portuguese Colonies	4.24	4.65	5.20	5.15
Total	21.32	18.12	19.97	21.24
Other Areas :—				
Sterling Area				
British	41.64	43.53	44.18	44.80
Non-British	2.22	3.94	3.89	4.60
European Countries and their colonies not specified above	32.06	31.68	28.50	25.77
Rest of world	2.76	2.73	3.46	3.59
Total	78.68	81.88	80.03	78.76

Our exports to 'hard currency' areas were still only 21.2 per cent in the first quarter of 1947 as against 21.3 per cent in 1938 when we could draw on our foreign wealth to equalise the balance. Imports from these countries, however, were vastly swollen and still increasing. In the first quarter of this year they amounted to not less than £173.3 millions (an increase of £3 millions over the last quarter of 1946). Imports from 'soft' areas fell—partly because of the implementation of the Anglo-American Financial Agreement —by £9.6 millions to £190.5 millions.

It is seen that the share of our exports to the Pacific Dominions, our most faithful customers, is down by 25 per cent. Europe has increased its share, but South America is severely down and so is North America. But we shall certainly not be able to continue our sales to Europe unless the U.S. decides to extend her lending programme and foregoes tying her loans—a contingency which can hardly be counted upon. And the reintroduction of multilateral trading and the reduction of preferences does not augur well for the re-expansion of our trade with those vital areas of supply in which we have lost ground.

If our balance of trade appears in the midst of a sellers' market in this highly disequilibrated state, what is one to expect for the future when U.S. pressure will make itself felt? At present, for example, U.S. manufacturers of cars continue to restrict their exports, and delivery of machinery is practically impossible to obtain.

TABLE IV

Imports		*External Trade (as % of totals)*		
Year	*Total*	*Food and Drink*	*Raw Materials*	*Manuf.*
1935	100	47.0	28.1	24.4
1937	100	41.9	30.7	26.7
1945	100	44.3	26.6	27.2
1946	100	49.2	29.7	19.0
1947 (January only) ...	100	50.7	28.9	18.4
Exports.				
Year	*Total*	*Metal Goods*	*Textiles*	*Other Manufs.*
1935	100	31.3	27.3	18.6
1937	100	33.2	26.0	18.4
1945	100	30.3	24.9	21.6
1946	100	44.1	20.4	21.7
1947 (January only) ...	100	46.2	21.1	20.6

It is seen that the exports of metal goods have increased almost 50 per cent in importance since 1935, and stand at almost half of our total exports. The share of textile exports, despite the violent rise in prices, is almost 25 per cent down.

It is difficult to see how this position can be easily remedied without an adjustment of the relevant passages of the Anglo-U.S. Agreement. In any case it is difficult to see how major saving can be effected by cutting raw material imports if we are not to endanger the continuity of production, or cause severe discomfort by reducing food imports. Tobacco might have to be further cut, and films and petrol restricted. But there are no other obvious instances of considerable potential economy of foreign exchange.

We must, moreover, remember that such further cuts will seriously complicate our relations with ' soft ' currency areas as *any* cut must be an *all round one.* The case of reducing Australian periodical and book exports to this country because we had to restrict our purchases in the U.S. shows how ' multilateral expansionism ' works in prctice. Another hardly less iniquitous regulation is the all round restriction to 20 per cent of the pre-war value of all so-called ' luxury ' imports from the U.S., Canada and the European ' soft ' areas with which we continue to run a large surplus.

While it would be rash to generalise on the basis of such a short period, can it be doubted that the theoretical case for the re-introduction of export licensing has received at least a prima facie practical demonstration ?

Theoretically the need for such selective control is unanswerable. The degree of ' softness ' of a currency arises from the unbalance between monetary demand at current rates of exchange to productive capacity in the respective country. As no ' equilibrium ' rate of exchange exists in any sensible definition of that concept the restoration of the ' freedom ' of exports will automatically direct them (subject only to the import quota regulations of the receiving country) towards the ' softest ' of the ' soft ' areas for—*ex-hypothesi*—at the ruling, conventional, rates of exchange, profits on sales to that area are highest. Non-interference in such a world of lop-sided pricing (and this cannot be wholly remedied by devaluation or any other measure within the ' free ' system) necessarily maximises the unbalance of our own position. We must beware, however, lest we commit ourselves to a long-term programme of increased trade with the ' hard ' currency areas, that is, areas which are now our suppliers for *transitory* reasons, *i.e.* because other areas are exhausted by the war. Any adaptation of our industrial structure to this temporary shift would commit us to an uneconomic structure in our economic relations, which is the more dangerous because of the instability in these areas. While temporary markets in the soft areas should be curbed, the direction of trade should aim at securing only markets which are—potentially—permanent.

2. THE INVISIBLE CURRENT BALANCE. THE BURDEN OF FOREIGN COMMITMENTS

The estimates of the invisible current balance in the White Paper contain some rather abrupt revisions of the provisional figures contained in the Survey for 1947.[1]

TABLE V

	National Income Estimates (in millions of £)			*Survey for 1947*	
Shipping	+150	—140	+10	Shipping and other	—10
Interest	+150	—70	+80	Interest	+60
Other	+ 72	—42	+30		
	+372	—252	+120		+50
Government			—300		—300

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[1] Cmd. 7046, p. 62.

In the former estimate the invisible items amounted to only £m.50. These have increased to £m.120. The deficit in ' civilian account ' is thus reduced (with some slight changes in the visible balance) from £m.150 to only £m.100, *i.e.* only about £m.30 more than before the war—a remarkable achievement. With the colonies coming back into production and raw material prices at high levels,[1] it is not unreasonable to suppose that net income from abroad will show a further rise, though Britain has sold some high yielding assets recently, *e.g.* Argentine railways.[2]. Purely on *commercial account* the restoration of a balance did not seem difficult. But the raw material shortages of British industry are exceedingly acute, and it will be impossible to continue the present level of production if imports and stocks are not increased, especially in timber and steel. Import prices, moreover, are higher than last year. The estimate of the increase in the adverse Balance of Payments on commercial account from £100 millions to £300—£400 millions is, therefore, not unreasonable. Provided this increase in the import surplus is in fact used for building up stocks, this drain will not however be cumulative, *i.e.* can without danger be carried by the U.S. loan.

The estimates of the current balance of payment leaves, however, no doubt as to the real reason of our discomfiture. The estimates of Government expenditure abroad have also been radically altered—a somewhat astonishing fact. It is now clear that the very sharp increase from 7 to 13½ per cent of total resources devoted to ' non-military ' expenditure, foreseen in paragraph 147 of the Economic Survey for 1947 for ' Other public expenditure ', represents, in the main, the incidental cost of our various commitments in Europe, the Middle East and, more especially, in Germany.

TABLE VI

Government overseas expenditure	*1946*
(*a*) Military (net)	225
(*b*) Relief and rehabilitation	97
(*c*) Cost of Germany (net)	38
(*d*) Other (net)	—60
Total	300

The net military expenditure is stated to be only £225 millions, but this item comprises the proceeds of the sale of surplus stores. These amount to over a £60 million abroad last year.[3] Thus the gross cost of the military establishment abroad must have been some £300 millions. The most surprising item is the net cost of imports to Germany (*i.e.* excluding the cost of occupation) which is given as only £38 millions, of which exports from the U.K. to the tune of £20 millions, *i.e.* just over half of the total, are included.[4] Reparation deliveries are not included in this figure but in the next item of

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[1] Cf. below however on the effects of the price policy of the Government on our earning capacity.

[2] Revenue from these railways was £m.12.5 in 1945 and £m.13 in 1947, *i.e.* about 10 per cent p.a. of the sale price of £m.150, Hansard Vol. 433, Col. 1384.

[3] Hansard, Vol. 434, Col. 293.

[4] Dollar expenditure was only 33 per cent of this total, *i.e.* some £m.13, cf. Hansard, Vol. 433, Col. 109.

£60 millions of net Government receipts from abroad. Thus it is probable that Germany in 1946 did not cost us much, if anything, except for the expenditure on military establishments, which might have been considerably reduced. Unfortunately in the current year the drain by the British Zone will rise sharply owing to the failure of the reorganisation of the Zones under the Anglo-U.S. Unification agreement.

The Government estimate a decline in foreign expenditure of £mn. 175 in the current year. This seems somewhat optimistic, especially if it is taken into account that sales of war-stores will not substantially relieve the net cost any longer. The withdrawal of financial and the reduction of military help to Greece will undoubtedly lighten that burden.[1] The end of the garrisoning in India and further east will contribute to the relief. But the expenditure in Germany and the Middle East continues to increase as a result of the continuation of past policies. The continuation of this drain, which is equivalent to up to 20 per cent of our pre-war volume (and not much less than half of the value) of exports is not one which can be contemplated.

3. THE INTERNATIONAL CAPITAL BALANCE AND THE PROBLEM OF STERLING DEBTS

The best available estimates of British liquid reserves and assets abroad in 1939 put the total at between £mn.5,200—£5,500.[2]. The present position is determined partly by the liquidation of our foreign assets during the war and by the accumulation of debt. The liquidation of foreign securities up to the end of 1944 is shown in the following table :—

TABLE VII

Reduction in British Long-Term Investments

(In £ millions)

Empire Countries	British Investments 1938[3]	Overseas Repatriations 1939–44[4]	Foreign Countries	British Investments 1938[5]	Overseas Repatriations 1939–44[6]
	£	£		£	£
India	545	332	Argentina	390	25
Canada	537	186	Egypt and Suez ...	41	12+
South Africa ...	254[3]	125	United States ...	549+	300[8]
Australia	530	5+	All other	1,284	...
All other	452	...			
Total	£2,318	£648+	Total	£2,264	£337+
			Not identified ...	—	£105
			World total ...	£4,582	£1,090

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[1] The cost of Greece in 1946 was £m.87 million that of Palestine £m.82. Hansard, Vol. 439, Col. 651.

[2] Cf. Cleona Levis, *Debtor and Creditor Countries 1938–1944*, Washington 1945.

[3] Based on revised estimate.

[4] Figures itemised by countries are for the end of 1943, and are from Heatherington : ‘ Sterling Balances and Britain's External Debt ’, Pt. 1, Foreign Commerce Weekly, Oct. 28th, 1944, p. 40. The 105 million pounds ‘ not identified ’ brings the total to the end of 1944, and is an estimate based on White Paper, Cmd. 6564, Nov. 1944, pp. 38, 40.

[5] Including Rhodesia.

[6] Including 125 million pounds of pledged securities, but excluding 50 millions pledged only as regards earnings.

In 1945–6 £180 millions of assets have been sold[1] and Argentina has recently negotiated the purchase of the British owned securities of her railways of a nominal value of roughly £250 million[2] for £150 million and other negotiations have started for the sale of other assets. This will have an adverse influence on foreign income. Britain's external liabilities are shown in the following table :

TABLE VIII

External Liabilities by Areas

	£ million Outstanding on December 31st 1944	 1945	 1946
Sterling Area			
Dominions[1]	390	481	444
India, Burma and Middle East	1,524	1,929	1,883
Other sterling area countries	477	561	593
Total sterling area	2,391	2,971	2,920
North and South America	346	519	847
Europe[2]	378	273	356
Rest of world	56	62	91
Total external liabilities	3,171	3,825	4,214
Of which :—			
Net sterling, etc., liabilities[3]	2,887	3,332	3,480
External loans	284	493	734

[1] Excluding Canada.
[2] Including dependencies of European countries.
[3] Comprising bankers' liabilities *less* assets, and funds held in the United Kingdom as cover for overseas currencies, etc., but not including private holdings of securities, etc.

To this has to be added the uncalled portion of the U.S. loan and lend-lease obligation of £1,100 million and of the Canadian loan of £250 million both of which will certainly be fully used before long. The £150 million proceeds of the sale of the Argentinian railroads and the Australian gift of £20 million and the New Zealand gift of £10 million have to be subtracted. In addition, British gold and U.S. $ reserves have increased last year by £61 million and stood at £642 million as against roughly £mn.655 at the outbreak of the war.[3] The total change in the capital balance between 1939 and 1946 is shown in Table IX:

Nominally at any rate Britain is after some 300 years once again a net debtor nation, unless the ' war-debts ' are scaled down considerably. The changes in the capital balance in the two years 1945–6 are shown in Table X.

From this the interesting fact emerges that an appreciable part of the drawing on the U.S. loans (just over a third to £m.94) was used last year for strengthening the gold reserves of the country (including reserves at the I.M.F.), a wise precaution in view of the uncertainties of the future.

The net increase in sterling balances even last year amounted to more than a half of the help received by Canada and the U.S. Indeed, the reliance on the

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[1] Cmd. 7099, p. 50. [2] Ibid., p. 74.
[3] Statement to the U.S. Treasury at the conclusion of the Lend Lease Agreement.

TABLE IX

	£ million
loss of reserves	15
sale of assets	1,270
increase in liabilities	3,700[1]
thus a total adverse change of	4,985[2]

[1] Foreign loans granted since the end of the war amounted to £m.37 (the most important to France £m.21.35) Cf. Hansard, Vol. 433, Col. 1884.

[2] The change according to the White Paper on National Income was £m.4900 in the years 1939–46, Cmd. 7099, p. 19, Table 15.

TABLE X

Balance of Payments
Capital Account[1]

	£ million 1945	£ million 1946
Gold and U.S. dollar reserves	— 3	61
U.S. and Canadian lines of credit	—	—279
U.S. Government Loan (Lend-Lease, etc., settlement)	—161	—
Other loans to H.M. Government	— 48	38
Net sterling, etc., liabilities	—445	—148
External capital assets[1]	—110[2]	— 70[2]
Subscriptions under Bretton Woods Agreement Act, 1945 ...	—	33
Other[3]	—108	—35
Total external investment (equal to balance on current account)...	—875	—400

[1] Increases in assets and decreases in liabilities are shown as positive, and decreases in assets and increases in liabilities as negative items.

[2] So far as ascertained.

[3] Including an allowance for errors and omissions on capital account.

confidence in sterling was even greater. The Chancellor of the Exchequer stated[1] that during last year £m.230 balances were repaid—mainly to the Middle East and India[2]—while new borrowing amounted to £m.299. The importance of maintaining the confidence in sterling in general and in the willingness of this country to face up to her obligations is evident.

There has been a curious contradiction in the policy of the Treasury in handling this issue. On the one hand the basic principle of the sterling area, the freedom of capital transfers has not been abrogated.[3] Hence a certain—and increasing—amount of illegal capital transfer has taken place through the less well administered countries of the sterling area and some of the sterling area countries have used some of their funds accumulated during the war to pay for current exports. Such a strain in the present meagre flow of ' hard ' currencies is intolerable. The protracted failure in 1946 to deal with this matter is no doubt due to the old yearning after ' prestige ' which was

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[1] Hansard, Vol. 433, Col. 1881. The sterling balances show the following changes in 1946:

	Sterling Area countries in millions £	*Others*	
Increases	98	+201	
Decreases	—149	— 81	
Net change	— 51	+120	+69

[2] Cf. Table VIII above.

[3] The first step towards this goal has been taken by the Agreement with Egypt which excludes that country from the sterling area and grant her a certain quota of hard currencies out of old balances.

responsible for the return to the pre-war gold parity. It is quite evident that Britain cannot for the moment permit indiscriminate capital exports or repay war-time debts without limit.

On the other hand, the Chancellor declared that the total of these debts must be drastically cut—presumably in order to restore ' full convertibility ' or to fund the rest in accordance with Anglo-U.S. financial agreement.[1]

There does not seem to be any material impossibility about full repayment of these debts provided a reasonably low rate of interest is agreed upon and a long enough period is granted to this country to effect repayment. The setting aside of the equivalent of say £200 million per annum for the purpose would involve nothing more than a decrease in the domestically disposable national output of, roughly, some 2½ per cent. There can be no doubt that this can be easily borne. Difficulties are bound to arise, however, if the transfer of such amounts through free markets in the teeth of multilateral competition were attempted. In the absence of a well-organised system of planned economy in the creditor country the only means by which a transfer of such large amounts could be automatically secured is by the conclusion of payments or clearing agreements. Relief from the restrictions implied in Anglo-U.S. agreements would be urgently required. If this can not be obtained, other means within the letter of these international agreements must be employed.

4. Convertibility and Monetary Strain

In the last few years, an impressive series of financial agreements have been negotiated with countries not merely outside but also within the sterling area.

Within the sterling area trade was never conducted on a bilateral basis. It was a fully multilateral system within which even capital movements were comparatively free. As long as the external needs of the area were met, on a priority basis, from the total external revenues as a whole (the Sterling Area Dollar Pool)[2] no restriction was needed. ' Sterling ' was always available to finance trade : the limitations of the ' internal ' exchanges in the area were purely physical in character. This will now have to change. Both commercial exchanges and payments will have to be based on a non-discriminatory and fully convertible basis with countries outside the sterling area. The relative volume of supply of dollars will regulate *all* other financial and economic relations. This will inevitably entail some new restrictions on relations with sterling countries.[3] The dissolution of the sterling area dollar pool will not increase the supply of dollars—hence U.S. exports. But it will restrict transactions between sterling countries.[4]

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[1] Cmd. 6708, § 10.

[2] In this respect the commercial non-discrimination clause (§9) which was never contested was much more dangerous than the convertibility obligation (§8).

[3] Cf. Agreements with Egypt (Cmd. 6792, 6582 and 6720), Iraq (Cmd. 6646, 6742 and 6803).

[4] One cannot be too much astonished at the opinion current in the U.S. that the Dollar Pool reduced U.S. exports.

So far as non-sterling area countries are concerned, a number of agreements have been concluded in the past years. These had identical purposes: the reciprocal provision of finance for the trade between the sterling area and he countries concerned. They differed as a result of the fact that some currencies were ' softer ' than sterling, others ' harder '. An exception is the agreement with Argentina[1] concluded as early as September 17th, 1946, which assured free convertibility of the proceeds of the current exports of that country (a similar concession had been made earlier to the U.S. and Canada). Certain other accounts had also been made freely convertible, or transferable.

TABLE XI

I.	American Accounts ...	United States, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Salvador, Venezuela.
II.	Transferable Accounts ...	Canada, Newfoundland, Argentina, Belgian monetary area, Netherlands monetary area, Portuguese monetary area.
III.	Special Agreement ...	Italy.

In the case of most other countries sterling was freely usable in the whole of the sterling area. All these arrangements do not spell ' bilateralism ' of the strict ' bilateral ' character. In the case of ' soft countries'[2] mutual ' credits ' were extended with gold payments above that amount. With Sweden[3], Switzerland[4], and lately Spain[5], the arrangement was based on the availability of sterling accruing to these countries in the whole sterling area and on the voluntary holding of sterling balances by these countries up to a certain maximum. In all cases the exchange rates were determined and cross rates were made identical.

Thus these agreements established a system which was based on a controlled mutilateralism and provided on the one hand finance to prevent purely monetary difficulties strangling mutually beneficial trade. They also provided some stimulus for each of the contracting parties to balance their payments if possible by expansion of purchases rather than by restriction. The fundamental unbalance between the European countries and the Americas could not be overcome. But they certainly contributed to European reconstruction. These reciprocal credits at least tended to equalise the relative difficulties of the countries concerned.[6]

Recently official efforts have been made to minimise the importance of the introduction of general convertibility by reference to this progressive relaxation of control. It is argued that little, if any, change will be experienced, when on July 15th all payments on current account will become ‘ convertible’.

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[1] Cmd. 6953.

[2] Portugal (Cmd. 6798 and 7050), Belgium (Cmd. 6557 modified by Cmd. 7057), France (Cmd. 6613, 6809 and 6988), Netherlands (Cmd. 6681, and 6921). The availability of sterling was more and more extended by the subsequent arrangements. Austria (Cmd. 6891) and Hungary (Cmd. 6915) were in a special category. In their case the credits were specially arranged.

[3] Cmd. 6604. [4] Cmd. 6756. [5] Cmd. 7080.

[6] Cf. the article by Mr. Hammerskjold, *Index Supplement* for December 1945 ; also Prof. Myrdal: *The Reconstruction of World Trade and Swedish Trade Policy*, ibid. December 1946.

But the discrepancy between the rate of our balance of payments deficit estimated at £450—£500 millions a year and the rate at which we have lately been losing dollars—£800 millions is already startling. And this discrepency showed a rapidly accelerating tendency in the last few months.

TABLE XII

Drawings on U.S. and Canadian Loans

U.S. Loan $3,750 millions Canadian Credit, $1,250 millions

	Drawings during month		*Drawings cumulative to end of month*		
1946	*U.S. Loan* $m	*Canadian* Loan* $m	*U.S. Loan* $m	*Canadian* Loan* $m	*Together* $m
June	—	163	—	163	163
July	300	60	300	223	523
August	—	60	300	283	583
September	100	20	400	303	703
October	200	60	600	363	963
November	—	100	600	463	1,063
December	—	40	600	503	1,103
1947					
January	200	20	800	523	1,323
February	100	20	900	543	1,443
March	200	80	1,100	623	1,723
April	450	—	1,550	623	2,173
May	200	40	1,750	663	2,413
June	450	—	2,200	663	2,863
July 10th	100	—	2,300		2,963

* Up to July 6th, 1946, at exchange rate of $4.45, thereafter $4,03.
Source : Exchequer Returns.

The explanation of the discrepancy is partly furnished by the building up of our gold reserves, partly by the fact that the American budgetary credits for the American zone of Germany have run out and Congress has still not accepted the Administration’s new appropriation proposals. Under the Anglo-American Unification Agreement, however, we have undertaken to step into the breach and supply the whole of the finance needed by Germany which is, of course, at its peak in the months before the new harvest. This combined deficit must now be running at the rate of over £150 million, *i.e.* £3 million per week. The figure given by Dr. Dalton of the cost of Germany excludes this. *But the real testing time for convertibility is still some way ahead.* British exports are, at the present moment, not limited by lack of purchasing power abroad but by the limitation on production and supplies, *i.e.* the fuel crisis, the scarcity of raw materials, and shipping space. This does not mean, however, that these conditions will persist. So long as we are able to manage our foreign trade by commercial measures and so long as the sellers market lasts, convertibility is of little importance. But since January 1st, Britain has not been free to discriminate in her import policy and must cut down imports all round if it is difficult to obtain supplies from America. Hence the violent protests of the Australian book trade and the Kenya tobacco growers. When the sellers market is over the position will be very different indeed. Britain does not sell standard staple products abroad but complicated, one might almost say individualistic, products. While we can obtain supplies by bulk purchases, we shall not be able to obtain the means by which we can pay for these bulk supplies by bulk sales. We shall, moreover, have to cut supplies *all* round—even from soft countries. Only if Britain were allowed to conclude payments agreements, *i.e.* restrict the availability of the sterling proceeds of these bulk purchases to the purchase of British goods, could we guarantee that we would be able to maintain our imports. The 'official' point of view, so laudatory of the expansionist influence of multilateralism, neglects the certain deflationary pressure which is implicit in the superior American productivity and competitive position, not the least due to their capacity to lend.

The advantage of controlled multilateralism is that it permits a supple adjustment in the manifold relations between countries of very different size, wealth and industrial equipment. Only the existence of vast buffer pools of international liquidity offer an alternative. But the Bretton Woods credit facilities, as can be shown, are relatively insignificant for fulfilling such needs.[1] Here again a speedy re-examination of past policies is urgently required.

It is to be hoped that the cumulative restrictions imposed on British exports by Sweden, Argentine, Mexico and Brazil among the 'hard' currency countries will lead to a disillusionment of some economists in this respect and also induce them to investigate the hitherto undiscovered quantitative limitations of the effectiveness of the notorious scarce currency clause, to which attention was called at the time of the publication of the Bretton Woods Final Act.

5. The Terms of Trade

Actually the terms of trade do not as yet reflect the full extent of this movement. The deterioration of the ratio of the actual prices of imports to exports is against 1938 amounted to only 13 per cent in the first quarter of 1947, against 8.4 per cent. in June last year. But at the end of 1945 the British terms of trade had been practically the same as in 1938 and at the end of 1944 they had actually improved by 1 per cent. There can be little doubt that a further worsening is to be expected. And it is by no means certain that an American setback will lighten our position. If the exports of coal and textiles, the price of which has risen violently since the war could be resumed, the position would be different.

It was to be hoped that the continuation of the powers to undertake bulk purchases would be used not merely to obtain favourable terms by offering long term contracts and thus providing security to producers but also to increase total supplies. While some success has been achieved in both

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[1] Cf. my article *The U.S. in the World Economy*. BULLETIN, Vol. 8, No. 10, 1946.

TABLE XIII* *Terms of Trade*

	Trade as declared £ million	*Trade on basis of 1938 average values* £ million	*Index Numbers* *Average values* (1938=100)	*Volume*
Retained Imports				
1938	858.0	858.0	100	100
1945	1,062.7	531.5	198	62
1946 1st quarter	266.5	135.6	196	63
2nd ,, ...	309.2	147.3	207	69
3rd ,, ...	315.7	150.4	210	70
4th ,, ...	355.2	155.2	228	72
1947 1st ,, ...	345.6	143.6	240	67
United Kingdom Exports				
1938	470.8	470.8	100	100
1945	399.3	215.6	185	46
1946 1st quarter	185.1	98.7	188	84
2nd ,, ...	220.1	115.0	191	98
3rd ,, ...	240.9	122.3	197	104
4th ,, ...	266.2	130.4	204	111
1947 1st ,, ...	249.7	118.3	211	101

* The Board of Trade gives two sets of figures indicative of the movement of the terms of trace. The first series gives the change in the aggregate value of a representative selection of exports and imports. The second gives the change in the value of actual imports or exports relative to a base period. In a 'free' market economy the former is a better measure of the change as shifts usually take place in favour of goods the price of which is falling. In our present position in which we are forced to curtail the purchase of less urgent goods whenever the price of necessities rises and vice versa, the second series, now suppressed in the Monthly Digest, is a better indicator of our position.

directions by the Ministry of Food,[1] the contracts concluded by the Board of Trade do not show the emergence of any settled policy and the discontinuation of the Ministry of Supply contracts for non-ferrous metals must have resulted in prodigious losses for the country.[2] The difference in policy is demonstrated by the terms of the contracts. Only a few have been made with colonial areas in contrast with Dominions, and even these mostly in respect of commodities which have always been exported from those areas. The longest of the contracts has 5½ years to run. Most of the Board of Trade's contracts cover the current year only. The prices are usually re-negotiable annually. This arrangement cannot provide sufficient security for the producers to plan well ahead and thus enable them to reduce prices. On the other hand this annual review meets the complaint that either one or the other party would inevitably feel himself to be cheated. The scheme to start a large-scale production of ground-nuts both in East and in West Africa and the establishment of a £100 million Colonial Development Corporation represents a much more important departure. The former will definitely raise the output of oils and replace the Indian supplies on which we cannot count in future.

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[1] Bulk buying in 1946 amounted to £830 millions of which £203 millions was effected by the Board of Trade, £52 millions by the Ministry of Supply and £575 millions by the Ministry of Food. (The Economist, Records and Statistics, June 28th, 1947, p. 475). According to the Minister of Food (Hansard, Vol. 439, Col. 1167–1170) 160 million bushels of wheat were bought from Canada at C$1.55 per bushel (as against the Chicago price which fluctuated in the same period between U.S. $2.12 –2.96½). The Argentine meat contract on 83 per cent of Argentine exports was negotiated at 7d. per lb. as against a U.S. free market price of 2s. per lb.

[2] Statement of the President of the Board of Trade and of the Minister of Food, The Economist, Records and Statistics, June 7th, 1947, p. 414/5.

After a period in which it was conventional to be optimistic about the implications of ' progress ' in ' underdeveloped ' areas for the prospertiy of highly industrialised countries such as Britain, it is now more fashionable to be sceptical if not gloomy. The answer really depends first on the rate of progress and its international finance, and secondly on whether it is planned in some co-ordination with the reconstruction policy of the countries whose exports consist of manufactures. But there is little doubt that the XIXth Century position of Britain cannot be restored—in a somewhat more limited sphere and in co-operation with other European countries in much the same difficulties—without some such international planning. It is difficult, to say the least, to conceive the maintenance of the present British standard of life on the basis of a multilateral free market economy, faced as we are with the industrialisation of our overseas markets and at the same time with the competition in those markets of the U.S. whose industries are based on a vast and highly protected domestic market, and of the restored European industries.

The remedy foreseen by the framers of the Bretton Woods agreement, a devaluation of currencies, is singularly inappropriate in present circumstances (just as it would be in the case of a general slump for which the protagonists of ' market economics ' had it in mind.[1]) Britain is importing in the main staple commodities which have world markets. The quantity of our imports is not governed by internal money demand but by Government decision. A devaluation of sterling would not by itself cut imports (and a cut of imports can be effected without devaluation). Hence devaluation would not exert pressure on our import prices in terms of foreign currency which would therefore in terms of sterling increase fully in proportion to the rate of the devaluation. Our export prices on the contrary are in most cases not perfectly competitive prices, but result from imperfect competition and varying degrees of oligopoly. It is exceedingly unlikely that devaluation would increase the volume of our exports. It is even more unlikely that our export prices would immediately be put up in full proportion to the devaluation, as a large number of exporters work on the cost plus profit pricing principle. Under these conditions we should reap little if any benefit in the *volume* of our foreign trade which could not much better be reaped by *direct control*, while our *terms of trade*, already greatly menaced both by long term trends and by the short term after-effects of the war might even further worsen.

Conclusions

1. The short term international position of Britain, while more serious than the official estimates of the balance of payments for 1946 would seem to indicate, is by no means as unfavourable as the rate of drawing on the U.S. and Canadian loans seems to suggest. The rapidity with which these loans are exhausted is in part due to the building up of gold reserves which are larger than before the war and far larger than needed as long as unplanned

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[1] Cf. my essay on the International Implications of Full Employment. *The Economics of Full Employment, 1944.*

capital exports are prevented by an efficient system of exchange control. Britain could sustain even the present deficit in her balance of payments over a period of at least 18 months. Restrictive measures applied in a panic might generalise deflation and a shrinkage in world trade without benefiting anybody. Provided our long term policy is altered, and such long term planning of the international division of labour is ensured, which permits Britain to play an effective rôle in the world economy as a supplier of capital and more complicated consumption goods, there is no need for unconsidered cutting of our food and raw material supplies on which not merely our current, but (through the reorganisation of our industrial structure) our future competitive capacity depends.

2. Nevertheless, an orderly retrenchment in visible and invisible imports is required to lengthen the period in which the readjustments can be carried out and lessen the need for any further outside help :

(*a*) the imports of unessentials such as petrol, films and tobacco must be cut; this might yield a saving of up to £80 millions.

(*b*) the external commitments of the Government must be reduced : (i) the arrangements with the U.S. in respect of the finance of the import surplus of the British Zone must be revised and the present financial and economic policy followed by the Control Commission radically revised. (ii) while the evacuation from Greece, Indonesia and India will lighten the burden further cuts must be effected in the Middle and Far East. This should reduce our direct burden by well over £100 millions.

(*c*) We must ask for a revision of the Anglo-U.S. Financial Agreement so as to be able to switch imports from ' hard ' to ' soft ' currency areas.

3. We must try to increase exports both by diminishing the supplies of unessential goods (*e.g.* motor cars) to the home market and by increasing output. The control over exports must be reimposed in order to avoid their maldirection by a badly working pricing mechanism. The immediate reduction of the armed forces to their eventually planned size should enable an increase in output by £300 millions of which £200 millions might increase exports. While this is the sole rapid way in which production and exports can be expanded other measures can be taken to increase productivity in the longer run.[1]

4. So far as the longer term problems are concerned,

(*a*) The size of the Bretton Woods institutions has been shown to be insufficient for the purpose of carrying out the reconstruction of the shattered world economy.

(*b*) The dates at which a complete restoration of the ' free market ' mechanism could be contemplated have been shown to be unduly optimistic.

(*c*) The scarce currency clause as at present drafted is ineffective for coping with any short run instability in the dominant member of a multilateral world system. The principle of reciprocity must be accepted.

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[1] This would imply a domestic reorganization programme on the lines suggested by Messrs. Burchardt and Worswick in an earlier article (BULLETIN, Vol. 9, No. 3-4).

(*d*) Our freely offered assent to the Clause (9) of the Anglo-U.S. Agreement prescribing a non-discriminatory administration of quantitative restrictions which was not in this form demanded by the U.S. experts (who recognised in the I.T.O. Charter the need for discriminatory regulations of imports), is a direct consequence of the failure of the British negotiators to appreciate the restrictive character of multilateralism, whenever the ' dominating ' country should suffer from a depression while others are still fully employed (or, as now, succeeds in reducing the inflationary pressure more effectively than the other countries). The last published draft of the I.T.O. Charter, though representing some improvement on earlier drafts, does not provide protection to the manufacturing exporters such as France, Britain, etc.

(*e*) The *de facto* enforcement of the present political units—especially in Europe—in the main evolved during the XIXth Century, as the determinant criterion for international economic codes through the acceptance of non-discrimination in general, stabilises the inferiority of smaller and poorer areas. The escape clauses for ' poor ' areas permitting individual countries to take protective measures is likely to lead to an unhealthy degree of national autarchy as long as preferential tariff-unions or reciprocal purchase agreements—the sole means of re-establishing the balance of economic opportunity between countries of different sizes—are still outlawed. We must accordingly press for an amendment of the I.T.O. Charter.

5. The solution—if there is to be one—must come by the recognition in the U.S. of the need :

(*a*) to undertake a large scheme of free grants to the poorer areas or to develop a truly International Investment Board with powers to create international reserves and to direct contracts arising out of investment schemes to ' mature deficit ' countries.

(*b*) to permit the reorganisation on the basis first of preferential reciprocity, later on of integrated planning of large economic units capable of the same economic expansion as she herself has experienced owing to her uniquely favourable situation. Once such large economic units have consolidated themselves a mutually advantageous exchange can take place between them.

(*c*) to abandon the system of tied loans.

6. So far as Britain is concerned the Government must, in co-operation with enlightened public opinion abroad, undertake a planned development of the production of primary products on the basis of reciprocity, and press vigorously for a close co-ordination of industrial development abroad and at home. The Marshall suggestion and the negotiations now in train in Paris and Geneva offer this country a last chance. It must at last be taken.

THOMAS BALOGH.

THE 1947 NATIONAL INCOME WHITE PAPER

A. THE RESOURCES OF THE UNITED KINGDOM

It is important to discover whether, in what way, and for what reasons the United Kingdom is poorer than it was before the war. This resolves itself into determining first how the resources currently available to the United Kingdom compare in quantity with those available before the war, and secondly what differences there are in the uses to which the resources are being put. On both these questions the latest National Income White Paper (Cmd. 7099) throws some light. In attempting to answer them, we shall have to make on occasion some rather arbitrary assumptions. The results, however, being expressed in terms of the order of magnitude of economic changes rather than of their precise extent, will not be greatly affected by errors in the assumptions, provided of course that these errors are of a reasonable size. We shall also take the estimates as given in the National Income White Paper. Our results are therefore strictly speaking only the implications of this document (and of certain other assumptions), and their validity depends on the validity of its estimates—though errors in these will also not greatly affect the broad conclusions.

(1) *The Resources Currently Available*

We shall first attempt to determine the element of price increase in the growth of national income. We only have one index which is fairly reliable, and that is the index for the consumer goods prices of different groups of commodities. This index is implied in a comparison between the cost of consumers' goods at current market prices (Table 13 of the White Paper) and at 1938 prices (Table 14). If we take the arithmetic mean of relative prices, weighting them by an average of the purchases of each group of commodities in 1938 and 1945 at 1938 prices, we get the following index :—

TABLE I[1]

Index of current market prices of consumers' goods and services

	1938	*1939*	*1940*	*1941*	*1942*	*1943*	*1944*	*1945*	*1946*
(1938=100)	100	103	120	132	142	146	150	152	155
(1945=100)	66	68	79	87	93	96	98	100	102
Value of the £ sterling for buying consumers' goods and services, compared with 1938									
(1938=20/–)	20/–	19/5	16/8	15/2	14/1	13/8	13/4	13/2	12/11

We can further, as explained in Appendix A, calculate a comparable national cost[2] price index of consumers' goods :—

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[1] Tables I, II, III, XII and XX are Tables from Mr. Champernowne's paper in the May, 1946 BULLETIN, brought up to date in the light of the new estimates for 1946, and the revised estimates for earlier years, given in the new White Paper.

[2] ' National Cost ' is used in the White Paper to denote that part of the price of a commodity which can be ascribed to payments to the factors of production, as distinct from that part due to indirect taxes and subsidies.

TABLE II. *National Cost Price Index of Consumers' Goods and Services*

	1938	*1939*	*1940*	*1941*	*1942*	*1943*	*1944*	*1945*	*1946*
(1938=100)	100	102	116	125	132	135	140	145	148
(1945=100)	69	70	81	86	91	93	97	100	103

These indices both fail to take into account the full deterioration of quality. For example, the index number for the market price of books, newspapers, magazines, etc., in 1946 was 118 (1938=100), which apparently does not allow fully for the reduction in the number of pages of newspapers (although of course the value of a paper is not reduced *pari passu* with the number of pages).

An approximation to the value of the use of national resources, at fixed prices, could be obtained by using the national cost to deflate the value of our current outlay,[1] but it is more accurate to proceed as follows.

We shall work in ' national cost ' prices throughout, and at 1945 prices, since these seem to be the most useful for the main purpose, to compare the state of the economy in 1938, 1945 and 1946. For the method of calculating consumption at fixed national cost prices see Appendix A.

For estimating domestic investment we are now provided with the hint that in 1946 ' the level of gross fixed capital formation was roughly two-thirds of the level immediately before the war ' (White Paper, page 8). This gives us a quantity relative. Since we can obtain from the White Paper an estimate for the value in national cost prices of gross domestic capital formation (Item 60 in the main tables, *less* an adjustment for indirect taxes from Table 34), we can calculate a price relative for 1946 in terms of 1938.[2] 'Capital formation,' includes, of course, net addition to stocks. This should, theoretically, be separately deflated, but until this outstanding gap in our statistics is filled we can make no precise estimate of how large net stockbuilding is. It was, however, for each of these years, probably small compared to investment in fixed capital, except possibly for 1946—though even for this year there was much destocking in some materials, *e.g.* coal—and we shall ignore the distinction for our present purpose.

Index of National Cost Price of Investment Goods

	1938	*1945*	*1946*
(1945=100)	44	100	108
(1938=100)	100	227	245

This index probably overstates the price increase, but it is certainly of the right proportions. It can be used to deflate the value of net capital formation (again adjusting for indirect taxes). There would seem to be a case for deflating gross investment and depreciation separately to reach an estimate of net investment at fixed prices, but presumably depreciation would need to be deflated by the same index as gross investment, if 'real' depreciation is to be estimated (in terms of replacement cost).[1] The estimate for deflated net investment would therefore not be affected. This is so, even if depreciation is adjusted to make it reflect replacement cost more accurately, since, according to the White Paper (Note 56 to the main tables), a change in depreciation allowances would alter the estimate of *gross* capital formation by the same amount (leaving the estimate of *net* investment unchanged)[2] and the consequent adjustment to gross capital formation would have to be deflated by the same index.

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[1] We use the term ' outlay ' to cover both private and public spending on the use of resources, whether these resources are provided by domestic production or foreign loans. This differs in fact from ' National Expenditure ' used by the authors of the White Paper, because the latter is defined so as to equal national income, *i.e.* ' National Expenditure ' =' National Outlay ' *plus* ' Net lending abroad '. Our formulation corresponds to that called ' Total resources used at home ' in the White Paper.

[2] We assume an 8 per cent increase between 1945 and 1946.

It is assumed here that Government[3] payments to the factors of production (including of course to privately employed factors producing goods and services for the Government) have increased at a slower rate than have factor incomes of producers of consumers' goods (see Table II), in view of the relatively slow rise in civil servants' incomes[4] and some improvements in Government purchasing technique.

We shall use the following arbitrary index for deflating Government expenditure :—

Index of National Cost Price of Government Goods[3]

	1938	1945	1946
(1945=100)	74	100	104
(1938=100)	100	135	140

It is in this last item that the necessity for taking a recent year as the base one becomes apparent, for Government expenditure in 1938 was not large enough for index number errors to make an appreciable difference in the accuracy with which we can estimate its 'real' size.[5]

TABLE III. *Net National Outlay, valued at 1945 (National Cost) prices (£'000 millions)*

	1938	1945	1946
(1) Personal Consumption	5.38	4.78	5.28
(2) Net Capital Formation	0.70	0.12	0.64
(3) Government Expenditure on Goods and Services	1.03	4.32	2.17
Net National Outlay	7.11	9.22	8.09

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[1] Again ignoring the fact that the gross investment price index should cover stocks as well as fixed capital.

[2] There is, however, some reason to doubt this. A change in depreciation allowances would presumably affect the estimates for net investment (by altering the estimates of net profits and rent), leaving gross investment unaltered. If this is so, and the depreciation allowances in 1938 were a true measure of replacement costs, it would seem that net investment was actually still negative in 1945, and only at a low positive level in 1946. Also the increases in national outlay and income shown below would only be about half as large. (I am indebted to Mr. Worswick for pointing out this possible error in the White Paper). The general conclusions would not, however, be greatly affected. We are, moreover, as explained above, concerned primarily with showing the implications of the White Paper, which means accepting its explanations.

[3] By 'Government' we mean all public authorities, and 'Government goods' is used as a short expression to indicate their purchases of goods and services for current consumption.

[4] Wages, salaries and H.M. Forces' Pay appear to account for about half the current expenditure of public authorities.

[5] A difference of 10 points to the index number for 1945 (1938 = 100) makes approximately 1 % difference to the total outlay in 1938 at 1945 prices (*i.e.* to the first total in Table III).

One should make allowance for the lack of freedom of choice, as the White Paper points out, in making comparison between quantities of consumers' goods bought, in as much as people take what are to them more or less unsatisfactory substitutes for goods in short supply (*e.g.* shaving cream for soap, wines for spirits, etc.).

It does seem undeniable that the British Government and people are using more resources than they were before the war, though not as much more as they were in 1945 (let alone the years of full war). The next question is to estimate what happened to national output over the same period, since that of course largely determines the resources which are available without incurring liabilities overseas.

If we deflate each item of ' national expenditure ' except external investment (*i.e.* personal consumption, domestic capital formation, etc.) we get an estimate of the national outlay, valued at fixed prices, as above. It is not, however, legitimate to use the results for comparisons of production, as is sometimes done. Movements in the prices of goods and services bought are partly dependent on import prices, and the resultant index should not therefore, be used for deflating national production.

The error in this procedure lies in the fact that no allowance is made for foreign trade. We can legitimately construct an index for the cost of national outlay. To use this index for deflating national income would only be valid if there were no change in the terms of trade and no overseas investment. The confusion really arises from the double meaning usually applied to the term ' national income '. It serves to express both the value of national output and national expenditure. From this dualism of terminology arises a dualism of procedure—the same estimate, whether absolute or relative, is made to serve two purposes.

This is not to say that an index of the cost of resources currently used may not be a good approximation to an index of the cost of production, since the only firm index we have is for the cost of consumers' goods. It should however be understood under what conditions this index may be less legitimately applicable to production than to resources used. The analysis above does, however, suggest an alternative approach, namely to deduct the value of imported goods from the total value, working in fixed prices throughout, and to use a separate index of export prices for exports.

To construct Table IV, total imports were deflated by the index of import prices in the Board of Trade Journal.[1] Imports of capital goods f.o.b. were taken to be 4/5 of the imports (valued c.i.f.) in Board of Trade categories IIB, IIC, IID, IIE, IIIC, IIID, IIIF, IIIG, IIIH and IIIS. These were separately deflated by their respective price indices and deducted from total imports (at 1945 prices). Government goods were assumed to account for 5 per cent of total imports in 1938, 25 per cent in 1945 and 10 per cent in 1946. These were also deducted, leaving imports of consumers' goods, already deflated, as the balance. Imports were then deducted from each of the three categories in Table III. These assumptions are of course very arbitrary (it would be in fact almost impossible to trace all imports to the final buyer), but differences in allocation would not affect the final totals. Invisible imports were all allocated to consumption, except for Government expenditure overseas, and part of interest payments (both of which were included among Government goods). Government overseas expenditure, shipping, film,[1] remittances and travel expenditure were deflated for price changes. Exports and re-exports of manufactures were separately deflated by Board of Trade Journal indices.

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[1] This is an index of c.i.f. prices. F.o.b. prices would probably have tended to rise slightly more gradually.

We are of course concerned here only with exports and imports for which payments are made, following the White Paper definition. The estimates of merchandise exports and imports in 1945 are taken from a paper in the *London and Cambridge Economic Service Bulletin II*, 1947, by T. Barna and others. Invisible items for that year were assumed to be much the same as in 1946, with some obvious adjustments. The estimate of Government overseas expenditure in 1945 was obtained as a residual.

TABLE IV

Net National Income at 1945 (National Cost) prices (£'000 millions)

	1938	*1945*	*1946*
(1) Home-produced, home-consumed, consumers' goods and services	3.81	4.02	4.28
(2) Home-produced, home-consumed capital goods (net) ...	0.44	—0.01	0.49
(3) Home-produced, home-consumed Government goods and services	0.92	3.54	1.73
(4) Exports of goods and services...	1.50	0.79	1.22
Net National Income	6.67	8.34	7.72

It appears from Table IV that the increased outlay is largely made possible by higher production than before the war. It is worth while seeing whether we can draw any conclusions about productivity. The necessary assumption is that the national cost prices of different commodities correctly measure their respective values. This assumption is in fact implicit in all ' real ' comparisons. By making it we bypass the difficulty of manpower transfers between industries—for the transfer of labour from producing one commodity to producing another at a 20 per cent higher (national cost) price is taken as a 20 per cent increase in production. We are left with the difficulty of changing sex and age ratios, but provided we remember that these changes may be responsible for changes in productivity, the comparison of output per person[2] is in itself quite legitimate.

Let us take the total occupied population to be 19.0 millions in 1938, 21.8

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[1] The 1938 figures being multiplied by 2, 2, 1.5 and 1.5 respectively. No change is assumed between 1945 and 1946. It seems that no price index can realistically be applied to other ' invisible' items, such as interest, since here we are concerned with the output of the factors of production, not with what their income will buy.

[2] Note than manpower statistics treat two women in part-time employment as 1 unit. Those under 14 and over 65 (60 in the case of females) are excluded.

millions in 1945 and 20.1 millions in 1946.[1] We can then easily calculate the national income (at 1945 national cost prices) per head of the occupied population, which is given in Table V.[2] This calculation includes, however, services such as rent and defence in the numerator. It will give more meaning to the word ' productivity ' if we only deal with the net output of enterprises. Let us deduct estimates of the pay of domestic servants,[3] the net rents of dwellings,[4] income from overseas,[5] the pay of public servants[6] and the pay and allowances of the armed forces,[7] all valued at 1945 national cost prices, from the national income to estimate the ' real ' output of enterprises. Similarly we need to deduct the number of domestic servants, public servants and armed forces from the total occupied population. The results are shown in the lower part of Table V.

TABLE V *Approximate National Productivity per head*

	1938	*1945*	*1946*
Net National Income at 1945 prices (£ millions)...	6,670	8,340	7,720
Occupied Population (millions)	19.0	21.8	20.1
Output per head of occupied population at 1945 prices (£)... ...	*351*	*383*	*384*
Ditto (1938=100)	*100*	*109*	*109*
Net Product of Enterprises at 1945 prices (£ millions)	5,530	5,950	6,040
Number working for Enterprises (millions)	16.1	14.8	15.5
Output per head of those working for enterprises, at 1945 prices (£)	*343*	*402*	*390*
Ditto (1938=100)	*100*	*117*	*113*

In calculating the productivity of enterprises from the overall national productivity we made deductions from the numerator (e.g. rent) not matched by deductions from the denominator. Hence the productivity of enterprises seems to be lower than that of the whole country in 1938.

It will also be seen that productivity appears to have risen faster in enterprises than in the whole country. The main reason for this difference is that the product of public service, which we have now deducted, is smaller per head than the product of enterprises and that public service produced a much larger part of the post-war national product. The share of public service had fallen again by 1946, *i.e.* the stability of ' output per head of occupied population ' was due to a transfer from the armed forces (with a low productivity) to enterprises, which balances an apparent fall in the productivity of enterprises. This decline was probably due partly to the end of highly paid war work, and partly to the end of overtime working.

[1] Barna, loc. cit. The labour force estimates include allowances for domestic service as follows : 1938, 1.30 millions ; 1945, 0.45 millions ; 1946, 0.50 millions.

[2] Gross national income per head would theoretically be a more suitable measure of productivity (since we include the labour force engaged in making good depreciation in the Occupied Population). This would, however, involve technical difficulties of allocation when government and other services are deducted below. It seems, however, that if productivity were calculated by this method, the percentage increases since pre-war would be 1—2 points lower than those shown in Tables V and VI.

[3] Appendix B. It was assumed that the productivity of domestic servants is unaltered, *i.e.* that ' real ' output varied exclusively with the numbers engaged.

[4] Appendix B. The national cost index of rent implicit in a comparison of our Table XXI with the White Paper Table 27 was applied.

[5] White Paper, Table 3.

[6] Appendix B. Deflated by the Government Goods factor price index.

[7] White Paper, Table 15. Deflated by the Government Goods factor price index.

One cause of the increase in productivity since before the war[1] is an increase in the output per head of those in service industries. A smaller labour force is distributing almost the same volume of consumers' goods.[2] To eliminate the output of the service industries we deduct from the net product of enterprises, (*a*) the output of those engaged in entertainment, catering, commerce, etc., and (*b*) a proportion of the product of the retail trade. For (*a*) we can use items 13 and 14 in Table XX.[3] For (*b*) we assume that $33\frac{1}{3}$ per cent[4] of the value of consumers' goods can be ascribed to distribution, and apply this margin to items 1, 2, 3, 6, 7, 8, 9, 10 and 15 of Table XX. The total engaged in distribution is similarly deducted from the labour force.[5] If we assume that the hours quoted in the Ministry of Labour Gazette for ' manufacturing and certain other industries ' can be applied to the labour force as constituted after these reductions,[6] we have finally an approximate estimate of the movements in hourly productivity (or PMH), shown in Table VI.

TABLE VI

Productivity in Primary and Secondary Industries and Communications[7]

	1938	*1945*	*1946*
Production of these industries, at 1945 prices (£ millions) ...	3,730	4,440	4,290
Number engaged (millions)	11.2	11.2	11.5
Output per head (£)	*333*	*396*	*373*
Ditto (*1938=100*)	*100*	*119*	*112*
Approximate Index of PMH (*1938=100*)	*100*	*117*	*114*

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[1] Note, however, that the increase in national production may not be as great as shown here, if the White Paper is mistaken on a technical point (see note 2 on page 230 above).

[2] Actually the services offered have sharply deteriorated, so that the increase in the productivity is not as great as this comparison suggests. Another way of putting it is that housewives are now to a greater extent an auxiliary labour force for distribution.

[3] Appendix A. The real value of domestic service, already deducted above, is added back in again.

[4] It is estimated by Plant and Fowler (Manchester Statistical Society, ' The Analysis of Cost of Retail Distribution') that the pre-war gross margin of department stores was 30 per cent. Let us take that as typical of all retail distribution. The Survey of Current Business (July 1942) estimates the percentage of retail sales in the United States in 1939 due to retail margins at 28.1 per cent, and to wholesale margins at 6.4 per cent (the lowness of the latter being due to the large number of cases in which wholesalers are by-passed). Let us take 7 per cent as the pre-war margin attributable to wholesalers in this country. We can assume that delivery to distributors is undertaken by manufacturers, or by railways (and is not, therefore, a product of the distributive labour force). This gives us a total of 37 per cent as a gross margin of retail sales attributable to distribution. We are, however, concerned with 1945 factor cost prices and the margin probably fell in the war, since increases in costs were often passed on directly to the consumer, without an additional ' mark-up '. Let us, therefore, take the figure given above as the margin appropriate to 1945. The same margin should also clearly be applied to other years, when the value of distribution is measured in real terms (*i.e.* we take the amount of distribution required to vary directly with the quantity of consumers' goods). The resultant estimate is clearly very approximate but any error would not be so large as greatly to affect the results. By this method it seems that productivity in distribution was, in 1946, 19 per cent above pre-war. But see the caution in the note[2] above.

[5] Strictly speaking part of the labour force engaged in commerce, etc. is servicing other industries, not consumers directly, and some reduction should be made to productivity to allow for this.

[6] 46.5 in 1938, 47.2 in 1945 and 46.0 in 1946 (averaging the figures given).

[7] ' Communications ' includes transport and postal services.

These results are very rough, in view of the length of the process by which they have been deduced, and in interpreting them the meaning given to ' productivity ' by the treatment above should be kept in mind. A large part of the increase in productivity from 1938 to 1945 was obviously due to the movement to industries with a higher value of output per person engaged, a movement that was partly reversed in 1946. It is, however, significant that the labour flow out of war industries between 1945 and 1946 did not, apparently, greatly affect productivity, which would seem to indicate that, conversely, the net flow into industries with a high output would not be responsible for all the increase in PMH shown above.

It seems, therefore, that estimates based on the White Paper do not substantiate the more alarmist statements about productivity declines since pre-war. Taking every branch of activity into account, it is probably fair to conclude that productivity was in 1945 and 1946 somewhat above pre-war.

The fall in national income due to war-time overseas disinvestment tends to be exaggerated. The fall in net receipts of interest, profits and dividends was from £175 million in 1938 to £80 million in 1946. This fall (which is already taken account of in Table IV) is small compared to the general rise in production, although of course there will be further increases in debt services (on Canadian and American credits and probably on blocked sterling balances), which do not yet show in our national income accounts.

(2) *The Use of Resources*

Despite the higher level of production and the further resources made available by incurring overseas liabilities, it is obvious that resources were still inadequate for the country's needs in 1946. The gap between total income and total outlay measures, of course, the extent to which we are ' living beyond our income '—*i.e.* the net addition to overseas liabilities. The current size of this gap is due partly to the turning of the terms of trade against this country, and partly to the higher absolute level of both import and export prices, which increases the real burden of our import surplus. Comparing Tables III and IV we can see that at 1945 prices there would have been an adverse balance of nearly £400 millions in 1938—it was actually £70 millions, due to the lower and more favourable prices then.

It appears from Table III that our real consumption and investment had each nearly recovered to 1938 standards by 1946. Since we were then virtually at Full Employment, we cannot expect a large increase in production in the future—even after the immediate critical bottlenecks are broken. There may be some slight advantage from a turning of the terms of trade but it would clearly be incorrect, unless we intend to incur further overseas liabilities, to anticipate national resources much higher than £8 thousand millions (at 1945 prices) until the 1950's. Further increases in living standards and in investment must therefore come mainly out of a reduction in Government Expenditure.

Government spending can be split between Defence and ' Other ', working in 1945 prices.[1] Defence expenditure for 1938 and 1945 was taken from the 1946 National Income White Paper (Cmd. 6784). The estimate of the total current public expenditure in 1945 was reduced in the 1947 White Paper, and it was assumed that all this reduction should be made from the estimate for war expenditure (part of the reduction is due to a redefinition in the latest White Paper, taking into Government current expenditure the decreased Government liability to industry—which really reduces the charge against war expenditure). For some reason the new White Paper gives no separate estimates of defence expenditure, but we know from the 1947 Financial Statement that Exchequer issues for defence in 1946–7 totalled £1,653 millions. Adjusting for indirect taxes, increased factor cost and the difference between financial and calendar years, we get the estimate shown in Table VII.

From Tables III and VII we can calculate the proportionate increase in the use of resources for different purposes since pre-war (see Table VIII).

TABLE VII

Public Expenditure on Current Goods and Services at 1945 National Cost Prices (£'000 millions)

	1938	*1945*	*1946*
(*a*) Defence Expenditure	0.45	3.74	1.57
(*b*) Other Public Consumption*	0.58	0.58	0.60
Total Public Expenditure on Current Goods and Services	1.03	4.32	2.17

* Although the stability of this item seems surprising, it should be remembered that the bulk of this expenditure is by the local authorities. For Example in 1938, current expenditure by the local authorities and extra-budgetary funds accounted for over three-quarters of the total non-war current expenditure by public authorities (Cmd. 6784). The expenditure of local authorities was not in 1946 greatly higher than it was before the war.

TABLE VIII

Increase in real outlay in 1946, over 1938

	Percentage increase
(1) Personal Consumption	— 2%
(2) Net Capital Formation	— 9%
(3) (*a*) Defence	+249%
(*b*) Other Public Consumption	+ 3%
Net National Outlay	+ 14%

Each category of outlay therefore uses roughly the same amount of resources as pre-war—except for defence expenditure which has more than trebled (in real terms). The output of £7.72 thousand millions in 1946 was in fact alone more than ample to cover our actual consumption, actual investment and Government expenditure, if defence expenditure had been no more than £1.2 thousand millions or about 2½ times its 1938 level (in real terms), instead of £1.57 thousand million—assuming, of course, that part of the armed forces could have been transferred to other uses without loss of output. This would have involved having an average number in the forces of about 1½ millions (a level which was only reached at the end of the year). A substantial reduction in public expenditure in this way would have, in fact, not only released resources for the export drive, for home consumption and for investment. It would also have greatly reduced the Government's deficit, thereby easing the inflationary pressure in the economy. The extra £370 millions of production could have been taken in more consumers' goods, more coal, more housing and more exports, easing the situation all round.

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[1] *i.e.* deflating each by the index used in estimating item (3), Table III above. It is possible that the factor cost of defence goods has increased more quickly than the factor cost of ' other government goods '. If this is so, the increase in defence expenditure in real terms will be somewhat exaggerated by the comparison made here.

Similar conclusions can be drawn from statistics showing the distribution of manpower. Table C in the Economic Survey gives estimates of the total manpower engaged on exports, supply departments, etc. In other official tables only employees of insurable age, ' excluding non-manual workers earning over £420 per annum ', were covered by export and supply department estimates. This new information allows us to draw up Table IX.

TABLE IX

The distribution of manpower in Great Britain (millions)

		June 1939	*June 1946*	*Change*
(1) *Consumers' Goods*[1]	Manufacturing	2.91	2.47	—0.44
	Primary producing[2]	0.95	1.08	+0.13
	Service industries	5.11	4.05	—1.06
	Total	8.97	7.60	—1.37
(2) *Investment Goods*	Manufacturing[3]	1.75	2.16	+0.41
	Construction[4]	1.31	1.19	—0.12
	Total	3.06	3.35	+0.29
(3) *Government Goods*	(*a*) Armed Forces	0.48	2.03	+1.55
	Manufacturing for defence[5]... ...	1.27	0.72	—0.55
	Total	1.75	2.75	+1.00
	(*b*) Public Service[6]	1.46	2.10	+0.64
(4) *Exports*	Manufacturing[7]	0.99	1.31	+0.32
(5) *General purpose*[8]	... ...	2.25	2.34	+0.09
Total in employment ...	... ...	18.48	19.45	+0.97

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[1] This table, together with Table IV, indicates that it is probably in this category, particularly in the service industries, that most of the increase in productivity will have come.

[2] Primary production includes agriculture, horticulture and fishing.

[3] All metals and engineering are included here as being investment goods.

[4] Constructing includes civil engineering.

[5] The numbers engaged on work for the Forces at June 1939, says the *Economic Survey*, ' were substantially in excess of the normal pre-war level on account of war preparations ', *i.e.* a comparison between 1938 and 1946 would reveal a greater increase in (3) (*a*) than shown here.

[6] Much of the increase here can be ascribed to ' defence ' rather than 'other ' expenditure.

[7] Excludes coal, part of which the *Economic Survey* table includes here.

[8] Coal, public utilities and transport which cannot be distributed among the first four categories, except in a very arbitrary way.

The allocation of manufacturing to different purposes on which the break-up is based is of course only approximate. Many goods listed as 'consumers goods' and 'investment goods' actually end up as 'government goods' on our definition, so that the categories of this table are not strictly comparable with those of Table IV.

In view of material shortages it is unlikely that in 1947 national output will be higher than in 1946, and the Government plans an import surplus of not more than £350 millions. This indicates resources available in real terms at about the 1946 level. The Government's intentions are to spend £899 millions on defence in 1947–8, which would seem to indicate an expenditure of nearly £1,000 millions in the calendar year 1947,[1] or say £950 millions at 1945 prices.

So approximately £600 millions extra will be available through lower defence spending. The Economic Survey suggests that 'other Public Expenditure' in 1947 will be 13½ per cent of the national income, which implies a jump of over £500 millions in this item.[2] If this is correct, there will be only small increases in consumption and investment over 1946 levels.

The outlook for 1948 is hardly any better. While production may be higher, and import prices may fall, we cannot count on being able to have any appreciable deficit in our balance of payments, so that total resources available will be little, if any, greater.[3] On present indications the average manpower in the forces will be rather over 900,000 for the year. This would imply defence expenditure of the order of £750 millions at 1945 prices. So only about another £200 millions will be available for consumption and investment. There can be no appreciable increases in our capital equipment or rise in our living standards while the resources used in defence are at such a high level.

The conclusions to which the White Paper lead us are therefore that we are materially richer, not poorer, than before the war, in that the resources provided out of current production are higher in real terms. However, military requirements now take so much more of the resources than they did before the war that consumption and investment are barely up to pre-war standards. We are poorer in the sense that we deploy our resources in such a way as to increase our military strength rather than economic welfare.

We are also poorer in the sense that it takes more of our output to purchase imports, and that a large amount of current production needs to be devoted to re-stocking of both materials and manufactures, and to rebuilding damaged fixed capital. These are, however, temporary effects, the duration of which largely depends on the intensity and duration of inflationary pressure.

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[1] This is roughly compatible with indications in the *Economic Survey*.

[2] Though this appears to include some items previously included in 'Defence Expenditure' and now transferred for some reason to this category.

It seems on the face of it hard to reconcile the apparent net reduction of only £100 millions in Public Expenditure implied by the *Economic Survey* with the likely near-balancing of Public Accounts this year. The National Income estimates take account, however, only of Public Expenditure actually undertaken, and Revenue actually received, and these formulations are therefore not quite comparable with budgetary ones, in which 'book' entries play some part (e.g. the 'clawing back' of unspent departmental credits in this year's Budget).

[3] Moreover in view of the dollar shortage, the resources available may not be the *right* ones. It is not much use our being able to expand European travel if we cannot get raw materials to keep our industries running.

B. Distribution of Income in the United Kingdom[1]

(1) *By Size of Income*

The White Paper also makes possible a comparison between the distribution of income[2] in the last pre-war and the first post-war years. The figures given refer only to incomes above a certain level, and it is in fact very difficult to estimate how many incomes there are in the country altogether. The Inland Revenue Commissioners, whose definitions we have to accept, treat married couples as one individual for tax purposes. They estimate (Cmd. 7067, p. 53) that in 1945–6 there were 18.75 millions of incomes above the exemption limit (£110). With the present wage-levels there are so few individuals (except for juveniles) receiving less than this in earnings that they can be ignored (especially since most of them will be married women). There are also H.M. Forces, of whom probably rather over half, *i.e.* about 2¼ millions, would have incomes under £110. In addition there were approximately half a million unemployed, on average (including ex-members of the Forces). If we exclude juveniles, rentiers and pensioners with small incomes, in the absence of information, we therefore get 21½ millions as the total number of incomes in 1945–6. This is about 1¼ millions less than the total working population,[3] a gap due to the excess of employed married women over those with incomes but not in the working population. If we take the total working population in 1938–9 as 21 millions,[4] and allow for half a million excess in the number of those with incomes, but not in the working population, over working married women (because of the fewer married women working then) we get an estimate of 20½ millions.[5]

From Table X it seems that the 18 million lowest income drawers, roughly speaking the ' working class ' and ' lower middle class,' who drew about 61 per cent of total pre-tax income in 1938, and who would have had about 18¾ million incomes in 1945, drew over 66 per cent in the later year.[6]

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[1] I am indebted to Mrs. Benzie for technical assistance with this part of the paper.

[2] Ignoring under-declaration of incomes for the purpose of tax evasion, which would probably increase inequality, especially in post-war years, if taken into account. This should be borne in mind throughout.

[3] Counting two women in part-time employment as one unit, and adding half a million for domestic workers to the published manpower figures.

[4] Adding two millions, for unemployment and an increase in the labour force, to the 1938 figure quoted above.

[5] This cannot be estimated more directly because of the large number of incomes falling below the exemption limit then. It is assumed that the number of incomes in the calendar and fiscal years were the same (the efflux at the end of the war was largely due to married women leaving work).

[6] On any reasonable assumption about the distribution of incomes within the £250—£500 range. This is true in fact even if all the top 650,000 in that range earned exactly £500. We assume throughout that the people with the lowest incomes before the war receive the lowest now, and vice versa. British society has been sufficiently stable to make this

TABLE X

Distribution of Pre-tax Income

Range of Income before tax[1]	1938				1945			
	Incomes		Amount of Income		Incomes		Amount of Income	
£	No.	%	£ million	%	No.	%	£ million	%
Under 150	13½ millions	66	2,681	60.6	7 millions	32.5	3,565	46.1
150—250	4½ millions	22			7 millions	32.5		
250—500	1,745,000	8.5	595	13.4	5,400,000	25.1	1,895	24.5
500—1,000	500,000	2.4	350	7.9	1,650,000	7.7	1,140	14.7
1,000—2,000	195,000	1.0	270	6.1	410,000	1.9	535	6.9
2,000—10,000	97,000	0.5	360	8.1	124,000	0.6	462	6.0
10,000 and over	8,000	0.04	170	3.8	8,000	0.04	138	1.8
Total ...	20½ millions	100	4,426	100	21½ millions	100	7,735	100

TABLE XI

Distribution of Post-tax Income

Range of Income after tax	Number of Incomes	
£	1938—9	1945—6
Under 150	13½ millions	7½ millions
150—250	4½ millions	8 millions
250—500	1,820,000	5,225,000
500—1,000	450,000	652,000
1,000—2,000	155,000	137,000
2,000—4,000	56,000	35,000
4,000—6,000	12,000	840
6,000 and over	7,000	45
Total	20½ millions	21½ millions

The highest income of these income receivers has increased from £250 per annum to nearly £500 per annum. The ' middle class ' proper seems to have shifted from the £250—£500 range to the £500—£1,000 range.

When post-tax income is considered (Table XI), the effect of a much more steeply graded tax structure overlaying this general income inflation becomes apparent. The number with a net income of over £500 has not greatly increased, but the dispersion both above and below £500 has been greatly reduced. The numbers in the top income brackets have been sharply cut, and practically all of the very high net incomes have now been reduced to under £4,000, and over half of those previously left with £2,000—£4,000 must have fallen down into the £1,000—£2,000 range. Those with £500—

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broadly true. As we are understating the number of incomes, we are also showing less inequality than actually existed in both years, since the residual category is the lowest one. In view of the inclusion of large numbers of service incomes in the latter year, our comparison probably understates the progress towards income equality.

[1] Data for over £250 taken from the White Paper, the total numbers with less than this amount being found by subtracting the numbers with more from the total incomes, as estimated above. This group was split further by assuming that the rate of tax on incomes of £150 was zero in 1938–9 and slight in 1945–6. Then the number of pre-tax incomes below £150 can be taken to be about the same as the number of post-tax (see Table XI), ignoring the difference between calendar and fiscal years.

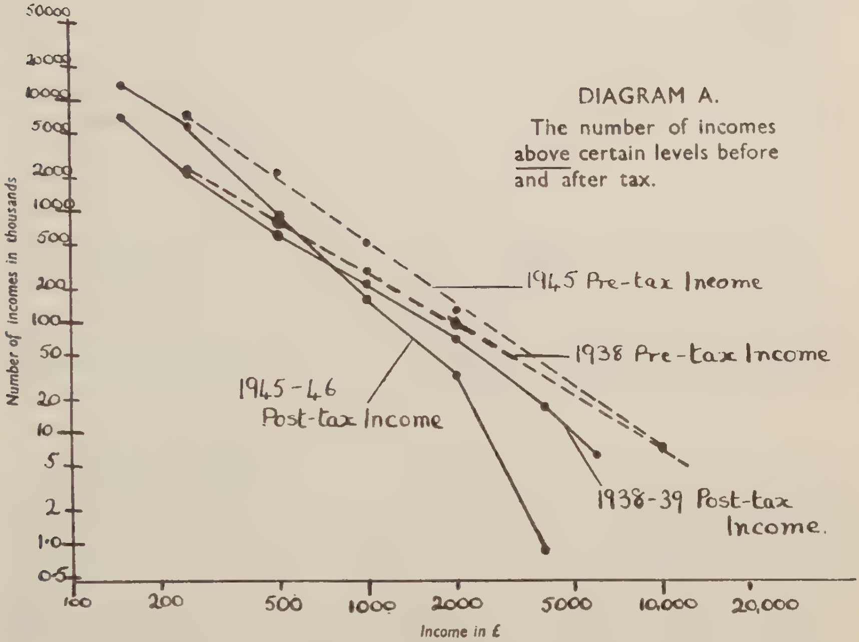

DIAGRAM A.

The number of incomes above certain levels before and after tax.

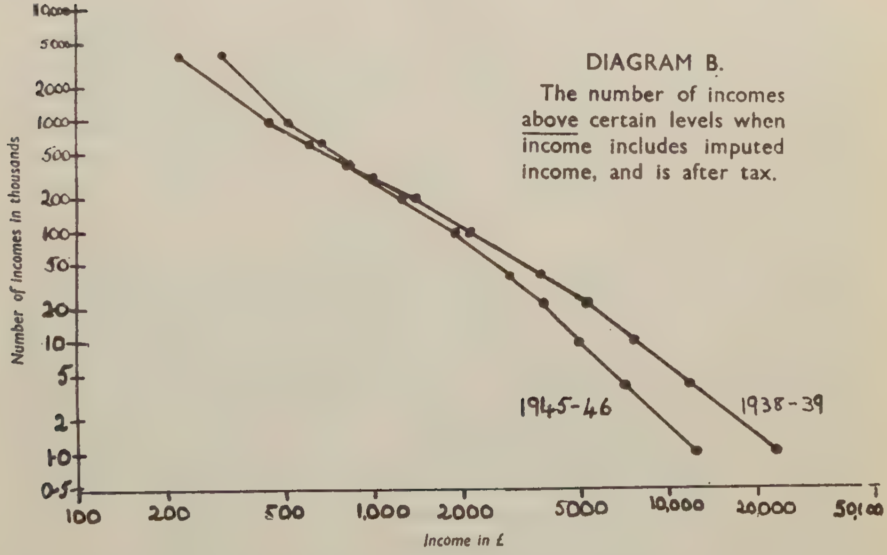

DIAGRAM B.

The number of incomes above certain levels when income includes imputed income, and is after tax.

£1,000 net are probably substantially the same people, with recruits from the income brackets on either side—though there is probably a greater ‘ skewness ’ towards £500 in the distribution of net incomes over this range.

The most striking feature is the shift of what must be the bulk of the wage-earners from the lowest to the lowest-but-one category, with another remarkable shift of large numbers from this category into the next higher again. Broadly speaking, therefore, we have a picture of net incomes closing in on a level of somewhere about £600—£700. People receiving more than this level will now in most cases be receiving (net) less than they did : those receiving less than this level will mainly have had an increase in net income.

None of the above conclusions would be materially altered if we took 21, 22 or 23 millions as the total number of incomes for either year.

We can obtain a more definite measure of the change in the degree of inequality of pre-tax income distribution by calculating the Pareto index for each year. Pareto's well-known law can be expressed in its simplest form as :

$$\text{Log } N = K - \alpha \log I$$

where N is the number of persons with pre-tax incomes above £I, K is a constant, and α is the index of inequality. If we fit straight lines to the values of N and I, obtained from Table X[1] and plotted on graph paper with a double logarithmic scale (as in Diagram A) we have :—

$$a_{1938} = 1.56$$

$$a_{1945} = 1.86$$

Mr. Nicholson estimated $a_{1941\text{-}2}$ at 1.71.[2] For other countries Colin Clark[3] quotes low values of a, indicating relatively unequal distributions, in the 1930's for Holland (1931, 1.70), Hungary (1932, 1.64), Japan (1930, 1.66) and the U.S.A. (1.42 in 1929, 1.77 in 1934) ; and high values for Australia (1934, 2.24) and New Zealand (1934, 2.21). It seems therefore that during the war the United Kingdom has travelled some way from being a country with a relatively unequal distribution, by pre-war standards.

In any case the differences of tax and price structure would make current comparisons misleading. It is clear from Diagram A that because of changes in the tax structure in this country the move towards equality in income distribution between 1938 and 1945 is much more marked for post-tax than for pre-tax incomes, though this change cannot be so readily measured. In addition, subsidies on a number of wage-goods must have meant a further levelling of real incomes, but on the other hand the rise in indirect taxes increases the inequality of real incomes.[4]

There is another important qualification to make to any such comparison of income distribution, namely that an allowance should be made for ‘ imputed income ’. This correction is attempted in Table XII.

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[1] Taking pre-tax incomes over £250 only, in view of the lack of data on incomes below that point. The Pareto indices depend mainly, in fact, on the distribution of incomes over £1,000 (because of the use of logarithmic scales) which rather limits their meaning.

[2] Bulletin, Vol. 4, p. 225.

[3] *Conditions of Economic Progress* p., 425.

[4] Some estimate of the net result of all these influences is attempted below.

Imputed income really consists of two different types: (1) Undistributed profits, which were allocated in proportion to the value of shares held.

(2) Other unallocated income. 'Examples are the investment income of charities, the increase in assurance funds and certain allowances and incomes in kind '.[1] This was assumed to be allocated in proportion to income after tax (an arbitrary assumption, which would probably tend to make the results understate the inequality of income distribution).[2]

TABLE XII

Distribution of Post-tax Income including imputed income

Range of income, including imputed income, after tax	*Number of incomes*	
	1938–9	*1945–6*
£		
500—1,000	490,000	750,000
1,000—2,000	198,000	216,000
2,000—4,000	77,000	67,000
4,000—6,000	19,000	11,200
6,000—8,000	7,200	3,000
8,000—10,000	3,200	1,200
10,000—15,000	3,100	920
15,000—20,000	1,100	320
20,000 and over	1,400	360

A comparison with Table XI shows that there were still people with very large incomes in 1945–6, but that the greatest part of that income was in the form of a share of undistributed profits. It was difficult to enjoy a net actual income of more than £6,000 per annum.[3]

This distribution is shown graphically in Diagram B (in a cumulative form). It will be seen that the addition of imputed income straightens out the post-tax curve, and a straight line could be fitted to it. Although Pareto did not intend his law to be applied to income as defined here, we can calculate a', the index of inequality of distribution of incomes *including imputed incomes, net of tax*:

$$a'_{1938\text{-}9} = 1{\cdot}73$$
$$a'_{1945\text{-}6} = 2.20$$

It appears that despite the increase in undistributed profits, the inequality of distribution of net income including imputed income has sharply fallen, as was the case with pre-tax income. Comparing[1] *a* and *a'* it is clear that the change in direct tax structure made a further considerable reduction in the inequality of distribution.

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[1] Cmd. 6784, p. 15.

[2] The technique used in allocating imputed income is as described by Mr. Champernowne, BULLETIN, Vol. 8, p. 144–5. It is based on this formula: $I'(N) = (1+A)I(N) + KX_N f(X_N)$ where I(N) is the size of Nth largest post-tax income in 1945–6, I'(N) is that income augmented by its share of imputed income, $X_N f(X_N)$ was the average values of shares held by persons in receipt of an income of £X_N in 1937, and A and K are constants. The values of these constants, calculated from Cmd. 7099 (adjusting for the difference between calendar and fiscal years for this purpose) were:—

$A_{1938\text{-}9} = 0.101$ $K_{1938\text{-}9} = 0.027$
$A_{1945\text{-}6} = 0.098$ $K_{1945\text{-}6} = 0.032$

[3] There is consequently a temptation for holders of large numbers of shares to press for a 'conservative' dividend policy, since this acts as a form of saving for them. They might hope to receive a larger net amount when direct taxes fall. In any case their shares will have a larger capital value if considerable amounts are 'ploughed back' into reserves, and such capital appreciation is not taxed. This will be still more true in view of the new arrangements for taxing distributed profits at a higher rate than undistributed.

(ii) *By Source of Income*

By comparing the sources of income shown in various sections of the White Paper, it is possible to infer a certain amount of information, which is given in Appendix B. This can be used to break down the estimates of distribution of the net product of enterprises to a rather greater extent. It seems that apparently no adjustment has been made for the higher depreciation allowances granted in 1946, although it is admitted (page 31) that they 'increased sharply'. If we assume that depreciation, on a comparable basis with that of 1945, should have been £520 millions, and that the rent in enterprises was about the same in 1945 as in 1946, we have the breakdown shown in Table XIII.

TABLE XIII *Distribution of the Net Product of Enterprises*[1]

	1938	*1945* (*percentages*)	*1946*
Wages	41.4	41.3	41.8
Salaries	25.3	19.6	20.8
Rent	1.9	1.2	1.1
Interest and Profits[2]	31.4	37.9	36.3
Net Product of Enterprises	100	100	100

[1] Defined as in the White Paper.
[2] Including farmers' profits and professional earnings.

Following Mr. Kalecki, we can estimate the gross profit margin rather more significantly by deducting the gross product of retail trade. This gives us the breakdown in Table XIV which is of greater value, since the earnings of employees in distribution and service industries are included with salaries, and tend to distort the gross profit margins. The deduction was done by the method outlined in Part A above (except that here we work in current prices instead of fixed prices, and that only retail margins are deducted[2]).

TABLE XIV

The share of wages in the product of enterprises other than retail trade and consumers' services

	1938		*1945*		*1946*	
	£ *Millions*	*Percentage*	£ *Millions*	*Percentage*	£ *Millions*	*Percentage*
Wages	1,535	59.3	2,460	54.2	2,645	56.8
Gross Profits[1] ...	1,055	40.7	2,080	45.8	2,010	43.2
Total Product ...	2,590	100	4,540	100	4,655	100

[1] 'Gross' is used here in the sense that all non-wage incomes are treated as profits for this purpose, not in the sense 'gross of depreciation'.

There appears to have been a fall in the relative wage-bill since before the war. A fall in the early years of the war has already been established by Mr. Kalecki.[1] It now seems that compared with pre-war, gross profits have almost exactly doubled, as against an increase in wages of about two-thirds. The stability shown in Table XIII (and in the White Paper, Table 7) seems to be misleading, and to be due to the relatively small increase in the product of retail trade and consumer services. If allowance were made for tax evasion and a possible fall in retail profit margins, the rise in gross profit margins would be greater still. The rise in net profit margins must therefore be considerable, in view of the stability of rent and salaries. It should be remembered that profits include the earnings of the self-employed. Most of these profits of those self-employed in trade or the professions have however been removed by the process of deducting retail trade and consumers' services. It may be presumed, therefore, that net profit margins made out of employing labour in industry have risen during the war. This may have been due to a shift towards industries with high profit margins (which implies a certain laxness in the control of profit margins of those working on Government account, even as late as 1945), and also to the increase in raw material costs.[2] If the above analysis is correct, there has been an important change from the traditional stability of the gross profit margins. The redistribution of pre-tax incomes noted above must therefore be mainly a redistribution from landlords and salaried workers to wage-earners, and also a levelling within each class. In as far as undistributed profits have risen, and these are not reflected in the inequality comparisons above (except in Table XII), the increased equality of income distribution may not be as great as it seems.

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[1] Ignoring the difference between calendar and fiscal years. The comparison understates the effect of taxes, since undistributed profits increase the inequality.
[2] Taken to be 30 per cent throughout, so as to avoid overstating the increase of profits.

The average gross profit margin is seen, however, to have slightly fallen between 1945 and 1946. This seems rather surprising on the face of it, since raw material prices increased between 1945 and 1946. There were, however factors operating the other way. There may have been a fall in gross profits previously made possible by the scarcity of certain consumers' goods (though much of these profits would presumably escape both the tax collector and the national income estimator); there may have been some shift of the labour force between industries, with a possible net loss to industries with a high margin; and there were difficulties associated with reconversion. The net profit margin has, however, appreciably fallen since 1945, despite a fall in the burden of rent. (See Table XIII). This is due to a larger proportion of gross profits being paid out in salaries. The proportion of gross profits going to the 'salariat' is still, however, much less than pre-war, this difference reflecting the relative 'stickiness' of salaries in a period of rising prices.

To measure the changes in the income of the different economic classes, we need a slightly different arrangement, as in Table XV.[3]

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[1] BULLETIN, Vol. 6, No. 9, Mr. Kalecki's ' gross profit margin ' is however slightly different from mine, since the product of industry servicing consumers, the pay of public servants and the wages of domestic servants are not deducted by him.

[2] To the degree that such increases are themselves ' marked up ' before being passed on to buyers, gross profit margins will increase in a period of rising material prices.

[3] Henceforth we use White Paper estimates of profits, without correction for the change in calculating depreciation.

TABLE XV

Distribution of Aggregate Private Income (£ million)

	1938	*1945*	*1946*
Private rent receipts[1]	375	380	381
Undistributed profits	259	815	659
National debt interest	223	492	530
Other interest and distributed profits	1,057	1,508	1,656
Salaries	1,110	1,530	1,675
Wages	1,735	2,780	3,020
Pay of H.M. Forces	78	1,255	523
Social security payments	229	259	333
Other transfer incomes	41	196	404
Aggregate Private Income	5,107	9,215	9,181
		(*Percentages*)	
Private rent receipts	7.3	4.1	4.2
Undistributed profits	5.1	8.9	7.2
National debt interest	4.4	5.3	5.8
Other interest and distributed profits	20.7	16.4	18.0
Salaries	21.7	16.6	18.2
Wages	34.0	30.2	32.9
Pay of H.M. Forces	1.5	13.6	5.7
Social security payments	4.5	2.8	3.6
Other transfer incomes	0.8	2.1	4.4
Aggregate Private Income	100.0	100.0	100.0

[1] The major part of public authorities' rent receipts are those of the local authorities. Since the total property income of the local authorities is only given as £7 millions in 1938 (Table 22) it is assumed that the rent receipts of public authorities can be put at £5 millions per annum.

One fact which emerges is that the burden of national debt interest has not greatly increased, as a proportion of the national income, despite the considerable increase in the total debt outstanding. When further conversions have been effected, and the national income has increased (at least in money terms), the debt service will probably be little, if any, greater a proportion of aggregate private income than it was before the war. This has been due partly of course to the cheap money policy, but also to the increase in national output and particularly to the rise in prices. If factor costs had not risen since 1938, the national debt interest would have taken nearly 10 per cent of aggregate private income (though of course the debt itself would have been smaller if Government expenditure had not been increased by rising prices).

The total of national debt interest and private rent receipts, as a proportion of aggregate private income, seems to have fallen (from 11.7 per cent to 10 per cent), and so have total private profits and interest, other than national debt interest (from 25.8 per cent to 25.2 per cent). 'Profits and interest' is composed partly of earned income (of self-employed people) and partly of unearned income. Unfortunately official estimates still do not make a distinction between these two components. However, it would seem that the proportion of aggregate private income which is unearned has almost certainly fallen also. Since in addition a larger share of unearned income goes to the working class, this is merely another indication of the extent of income redistribution. Total salaries, wages, and Forces' pay have fallen slightly (from 57.2 per cent to 56.8 per cent) but this loss has clearly been mainly at the expense of salaries, since we must consider Forces' pay as, in the main, a substitute for wages, which on balance, therefore, will have increased their share. The increase in ' other transfer incomes ' is almost entirely due to war gratuities and the pay and allowances of ex-servicemen on release leave, and is therefore also something of a substitute for wages. We can, therefore, expect, when demobilization is complete, to see a clear picture of redistribution from property income to wages.

Since we have sufficient information to assess the incidence of direct taxation on each of the broad types of private income, we can attempt to allocate the national product to the various economic classes. Table XVI shows us the net claim of each economic class, and of the Government, on the country's resources. Any expenditure in excess of these claims can only be undertaken by borrowing from some other economic class, and incurring a liability to service the consequent debt—whereas expenditure financed out of net income is free of such liabilities.

TABLE XVI

Distribution of Net National Product[1]

	(£ millions)		
	1938	*1945*	*1946*
Post-tax private rent receipts	299	199	235
Post-tax private profits and interest	1,209	1,580	1,635
Post-tax salaries	1,054	1,331	1,438
Post-tax wages	1,682	2,522	2,754
Post-tax pay of H.M. Forces	77	1,234	506
Transfer incomes (excluding National Debt Interest)	270	455	737
Aggregate Private Income net of Direct Taxes	4,591	7,321	7,305
Government Revenue, net of transfer incomes and subsidies	700	2,259	1,922
Net National Product[2] (at market prices)	5,291	9,580	9,227

[1] This table is derived from Table XV above and Table 35 of the White Paper. Direct taxes on land and buildings are treated as an offset against rent, all other direct taxes on property as an offset against profits and interest. The residual item in Table 35 (a deduction for income tax repayable as post-war credits) was divided arbitrarily between wages, salaries and profits. As the White Paper points out, in the case of mixed incomes the allocation of direct taxes is also only arbitrary.

[2] Net National Product (at market prices)
= Net National Income + Indirect Taxes —Subsidies.
= Aggregate Private Income —Transfer incomes + Government income from property + Indirect taxes —Subsidies.
= (Aggregate Private Income — Direct Taxes) + (Direct Taxes + Indirect Taxes + Government income from property —Transfer incomes —Subsidies).
= Aggregate Private Income net of Direct Taxes + Government Revenue net of transfer incomes and subsidies.

The redistributive influence of taxation is brought out here. While pre-tax profits and interest nearly doubled (see the second, third and fourth items of Table XV), post-tax they only rose by just over a third, and post-tax rents fell sharply. Wages, however, kept almost the whole of their 75 per cent pre-tax rise, and social security benefits were unaffected by taxes.[1]

This table presents another side to the data already given (in Part B, Section (i) above) on the greater equality of income after tax.

We can also estimate movements in the real income of various economic classes. Following Mr. Nicholson's procedure,[2] we can apply these weights to estimate the change in the cost-of-living for the working-class :—

Food	39.0	Fuel and Light	6.6	Rent ...	12.4	Household Goods ...	0.7
Drink	3.5	Clothing ...	9.3	Services ...	11.8		
Tobacco ...	5.1	Travel ...	2.6	Furniture	2.6	Other ...	6.4

In Table XVII we show an index of the cost-of-living calculated by applying these weights to the individual price indices implied in the White Paper. For comparison we give also a general market price index, based on 1938 weights, *i.e.* on the total consumption of each group of commodities as shown by the White Paper in 1938; the general market price index based on 1938 and 1945 weights (from Table I); and the Ministry of Labour cost-of-living index.[3] In as much as price indices of individual commodities fail to measure full price rises (for reasons already mentioned) the indices understate the increase in prices.

TABLE XVII. *Indices of price increases (1938=100)*

	1938	*1939*	*1940*	*1941*	*1942*	*1943*	*1944*	*1945*	*1946*
Working class cost-of-living index	100	103	119	131	141	144	147	149	152
General market price index (1938 weights)	100	102	119	132	144	150	153	156	159
General market price index (average weights) ...	100	103	120	132	142	146	150	152	155
Ministry of Labour cost-of-living index	100	101	118	127	128	127	128	130	130

This table indicates that the general market price index in Table I is a very much closer estimate of the rise of cost-of-living of the working-class than is the Ministry of Labour's index (based on pre-1914 weights), though the first index in Table XVII is probably better still.[4] It can be seen that subsidies have been rather more successful in stabilising the cost-of-living index than in stabilising the cost-of-living itself, though wage goods have clearly been prevented rising as rapidly in price as other commodities. Since the working-class index is 7 points below the general index calculated with 1938 weights for 1945 and 1946, we can assume that a working-class index based on an average of 1938 and 1945 weights would have been also 7 points below the general index based on 1938 and 1945 weights. This gives us index numbers of 145 and 148 for 1945 and 1946, which are more consistent with our general treatment.

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[1] Or so the White Paper appears to assume. It would seem that there should be some allocation of direct taxes to social security benefits (*e.g.* to family allowances), but it would of course be very small.

[2] BULLETIN, Vol. 7, No. 14. The weights are based on the distribution of working-class expenditure shown by the Ministry of Labour enquiry before the war, with corrections to one or two items, such as drink and tobacco, which were apparently understated by those taking part in the enquiry. (Note that in view of the subsequent rise in relative consumption of tobacco and drink, weights based on the pre-war enquiry are now still more inadequate. This means that the new cost-of-living index, to be based on these weights, will not be sufficiently sensitive to movements in the prices of beer and tobacco.) It should be noted that weights are only applied to groups of commodities and take no account of shifts within those groups. This, however, may not be a source of considerable error.

[3] Calculated from the monthly averages in the Ministry of Labour Gazette.

[4] This index is apparently similarly constructed to the new cost of living index. It therefore shows approximately what would be the result if the new index were carried backward to 1938, *i.e.* an increase in the cost of living of at least 50-- 55 per cent would be shown.

We can now estimate the division of the ' real ' national product from Table XVI. To calculate the Net National Product at 1945 prices, we add the 1945 net indirect taxes to the national income at 1945 prices for each year. To estimate real wages, transfer incomes, and H.M. Forces' pay, we use the index numbers just given; for salaries the general market price index of Table I; for Government revenue the Government goods' price index shown in Part A.[1] The remainder of the National Product in fixed prices was divided between rent and profits and interest in proportion to their post-tax size. This amounts to deflating them by a combined consumers' goods and capital goods' prices index,[2] which seems to be an appropriate procedure.

Table XVIII takes into account both tax and price movements, showing the value of post-tax incomes for buying what is generally bought out of each type of income, measuring such sales in fixed (1945) prices. It appears that price movements have been such as to increase still further the redistribution of income already noted in post-tax incomes, when such incomes are measured in ' real ' terms. Aggregate real wages in 1946 were approximately 11 per cent above 1938 levels. The fall in net rentier income can easily be seen (again despite the increase in the national debt). The purchasing power of aggregate net salaries has fallen slightly, though this is partly to be explained by the fall in the number of shop assistants (whose earnings are counted as salaries). It can also be seen that almost the whole of the increase

TABLE XVIII

Movements in real incomes

(£ '000 millions, at 1945 market prices)

	1938	*1945*	*1946*
Net rent	0.48	0.20	0.21
Net profits and interest	1.94	1.58	1.57
Net salaries	1.60	1.33	1.41
Net wages	2.44	2.52	2.70
Net pay of H.M. Forces	0.11	1.23	0.50
Transfer incomes	0.39	0.46	0.72
Net Aggregate Private Income	6.96	7.32	7.11
Net Government Revenue	0.95	2.26	1.85
Net National Product	7.91	9.58	8.96

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[1] Ignoring the effect of indirect taxes on Government goods.

[2] Actually there is also an implied element of Government goods price movements too, because part of Government expenditure was financed by borrowing from the private sector, and savings out of wages, salaries and H.M. Forces' pay are by implication ignored in the treatment above.

in the product since pre-war has been appropriated directly by the Government.

This does not measure, however, the full use of resources made by the authorities, since there was also considerable borrowing from the private sector. If we treat undistributed profits as the income of companies we can show the flow of savings in the economy, as in Table XIX.

Table XIX

Sources of the deficit of public authorities[1]

(£ millions)	*1938*		*1945*		*1946*	
Net personal income	4,409		7,212		7,230	
Personal expenditure on consumption	4,252		5,884		6,584	
Saving out of personal income		157		1,328		646
Net undistributed profits	182		109		75	
Net private capital formation	190		129		575	
Net saving out of undistributed profits		— 8		—20		—500
Net borrowing from abroad		70		875		400
Net savings available		219		2,183		546
Net expenditure of public authorities		919		4,442		2,468
Net revenue of public authorities		700		2,259		1,922
Net deficit of public authorities		219		2,183		546

[1] Income figures from Table XVI, expenditure from the White Paper, at current market prices throughout. The excess of tax liabilities over payment is treated as a form of saving. Net private capital formation was estimated by deducting the gross (non-war) capital formation of public authorities, less maintenance provision, from the net capital formation estimate in Table 15. This implies treating net transfers of ' surplus stores ' to private ownership as part of net private capital formation. It is not clear from the White Paper whether ' surplus stores ' includes consumers' goods. The estimated net non-war capital formation of the public authorities was added to public expenditure on goods and services. (The White Paper estimates of public authorities 'saving ' takes no account of capital formation. This implies a ' capital budget ' approach to public finance, an approach which, however desirable, is not yet compatible with the methods of budgeting, and therefore does not give a very valuable estimate so far as the light thrown on budgetary problems is concerned). It seems unfortunate that official estimates of private net capital formation are no longer given, since it must be easy for the Central Statistical Office to estimate the Government's share in capital formation, and private net capital formation has a very great significance for modern economic theory.

It can be seen that in 1946 a large part of private saving was required to finance private capital formation, and that the inflationary pressure would have been very high indeed in the absence of a substantial import surplus, since another £400 millions would have had to have been found from private savings.

Conclusion

The ' real ' analysis in Part A and the ' financial ' analysis here lead in fact to the same conclusion. The British economy is subject to considerable inflationary pressure which causes maldistribution of labour and an apparently insatiable sellers' market with all the shortages and queuing and inflexibilities in the economy that this involves. The pressure can only be eased by increasing production or reducing effective demand. It is of course desirable to solve it in the first way so far as that is possible, and this would mean not only greater intensity of effort, but also more efficient organization of production, particularly increased standardization and concentration into efficient firms. National output appears to be limited primarily by material shortages, in particular coal shortage, and the readiest source of higher output therefore is to arrange for the most efficient use of materials by concentrating output in material-efficient, and in particular fuel-efficient, units.

But we cannot expect great increases in production in the immediate future, or at least not sufficiently great to close the gap. It will, therefore, be necessary to use simultaneously the other method of easing pressure, namely, to reduce one or more of the categories of expenditure.

To reduce investment in producers' goods would seem highly undesirable, since it would postpone the eventual solution of our problem; and an increase in stocks, particularly material stocks, is essential. The scale of house construction could be reduced, but this would be equivalent to a reduction of consumption and should be seen in relation to other perhaps less essential items of consumer expenditure. Since a scaling down of the investment programme would reduce our future production capacity the choice would appear to lie between public expenditure and living standards. Since ' other public expenditure ' is not greatly above pre-war, and does not use an enormous proportion of our resources anyway, this means that the choice is finally between living standards and defence expenditure.

Table XVIII shows that despite the heavy increases in prices and taxation, the ' real ' value of post-tax private income has increased since pre-war. Moreover Part B as a whole demonstrates that private income has been redistributed towards the poorer income groups, *i.e.* those with a higher propensity to consume. The present effective demand for consumers' goods is therefore considerable. It cannot easily be reduced without affecting incentives. To increase taxes on property and on unearned income might not greatly affect incentives, but it does not seem likely that this could greatly reduce effective demand (except to the extent that capital wealth determines outlay). To raise further the level of indirect taxes (or lower subsidies) would probably increase rather than reduce inflationary pressure.

The decision between the different short-term ways of reducing inflationary pressure—in fact the decision whether or not to try to reduce it—is a political one. We can either have more consumers' goods, with a quicker end to the inflationary stresses and strains, or retain the defence programme envisaged for the immediate future. The American line of credit, by making available extra resources over and above what we produce ourselves, enables us to maintain a high level of military expenditure without too great hardship. We may be faced with a sharper choice between guns and butter in 1948.

D. SEERS.

APPENDIX A

The expenditure on consumers' goods and services at fixed national cost prices was estimated by the method explained in the Appendix to Mr. Champernowne's article in the May 1946 BULLETIN. (Briefly it depends on the fact that a quantity index obtained from the table below should be approximately the same as one obtained from Table 14 in the White Paper.) This gave us the following estimates for expenditure on consumers' goods and services at 1945 National Cost prices. The table is printed in full since it fills an obvious gap in the White Paper.

TABLE XX

National Cost of Consumers' Goods and Services Revalued at 1945 Prices (£ millions)

	1938	1939	1940	1941	1942	1943	1944	1945	1946
1. Food	1,763	1,794	1,606	1,477	1,554	1,508	1,575	1,575	1,726
2. Alcoholic Beverages	274	286	273	302	291	292	299	310	307
3. Tobacco	114	118	115	127	133	132	132	146	152
4. Rent and Water	360	369	372	368	363	364	368	373	377
5. Fuel and Light	258	260	266	268	260	248	251	259	284
6. Durable household goods	408	382	286	201	141	117	105	143	258
7. Other household goods	66	67	64	59	51	49	49	49	53
8. Clothing	763	759	636	470	467	422	470	477	564
9. Books, Magazines and Newspapers	73	72	67	70	72	77	83	88	101
10. Private Motoring	122	108	36	29	16	8	8	24	68
11. Travel	170	161	137	154	182	194	196	223	240
12. Communication Services	28	28	26	26	30	36	41	39	41
13. Entertainments	69	66	57	81	94	95	95	100	110
14. Other Services	627	613	566	543	484	456	446	476	553
15. Other goods	270	270	247	200	166	168	172	183	232
16. Income in kind of Armed Forces	22	36	89	137	146	181	198	202	106
17. Adjustment	—10	7	25	28	43	52	40	110	107
18. Total	5,377	5,396	4,868	4,540	4,493	4,399	4,528	4,777	5,279

An index of national cost price for consumers' goods and services was then obtained by the same method as used for the market price index, namely by weighting the price relatives for each group of commodities by the purchases in 1938 and 1945. If p_t and q_t refer respectively to the prices and quantities of each group of commodities in year (t), our index was obtained from this ratio :—

$$\frac{\Sigma \frac{p_t}{p_{1938}} (p_{1938}\, q_{1938} + p_{1938}\, q_{1945})}{\Sigma (p_{1938}\, q_{1938} + p_{1938}\, q_{1945})} = \frac{\Sigma\, p_t (q_{1938} + q_{1945})}{\Sigma\, p_{1938} (q_{1938} + q_{1945})}$$

APPENDIX B

TABLE XXI

Implied Estimates in the White Paper

	(£ millions) *1938*	*1946*
Total Salaries (Table 15)	1,110	1,675
Less Salaries in enterprises (Table 7)	— 940	—1,315
Implied Salaries of public servants[1]	170	360
Total pay of public servants[1] (Appendix V, Table D)	328	1,188
Less Pay and Allowances of Armed Forces (Table 15)	— 78	— 523
Less Implied Salaries of public servants[1] (above)	— 170	— 360
Implied Wages of public servants[1]	80	305
Total Wages (Table 15)	1,735	3,020
Less Wages in enterprises (Table 7)	—1,535	—2,645
Less Wages of public servants[1] (above)	— 80	— 305
Implied Wages of domestic servants[2]	120	70
Total Rent, Interest and Profits (Table 15)	1,748	2,756
Less Rent, Interest and Profits in enterprises (Table 7)	—1,235	—2,290
Less Interest, Profits and Dividends from Overseas (Table 3) ...	— 205	— 150
Implied Rent of dwelling-houses	308	316
Total Rents (Table 15)	380	386
Less Rent of dwelling-houses (above)	— 308	— 316
Implied Rent in enterprises	72	70
Rent, Interest and Profits in enterprises (Table 7)	1,235	2,290
Less Rent in enterprises (above)	— 72	— 70
Implied Interest and Profits in enterprises[3]	1,163	2,220

[1] These estimates refer to those employed in non-trading services of the public authorities.

[2] Table V.C gives 'wages and salaries paid by . . . other persons' (*i.e.* other than enterprises or the government) as £118 millions for 1938, and £69 millions for 1946—this also presumably refers to domestic servants.

[3] This can of course also be found by deducting overseas income from total profits and interest.

These implied estimates are presumably not given in the White Paper because of a greater margin of error than there is for the other estimates. Their accuracy also depends on a correct interpretation of the definition of each item. They should therefore be used with caution.

TABULAR APPENDIX.

EDITORIAL NOTE

The following tables illustrate the economic developments in U.S.A. and individual European countries by presenting the trend of production, prices and foreign trade in recent months compared with typical war and pre-war years.

Explanation of symbols :

... the figure is not available.
( ) figures provisional or approximate.
— figure is negligible.

TABLE I. UNITED STATES.

Index Nos. 1935–39=100[1]	Monthly Averages 1941	1945	1946	1946 Nov.	Dec.	1947 Jan.	Feb.	Mar.	Apr.[2]
Income Payments—Index	138	239	245	259	262	264	264	265	262
Consumer Expenditures—									
Quarterly Index	124	179	216	...	231	...	...	236	...
Dept. Store Sales—									
Value Index	133	207	264	272	274	265	269	275	274
Vol. Index of Farm Mktgs.	115	137	138	156	154	166	148	157	...
Employmt.[3], millions	35.7	38.1	39.0	40.5	40.7	41.8	41.9	42.1	41.7
Unemploymt., Millions	5.0	1.1	2.3	1.9	2.1	2.4	2.5	2.3	2.4
Buildg. Contr. Awarded :									
Value Index	213	119	266	242	268	252	263	230	230
Vol. Index[4]	183	86	168	146	156	143	149	129	129
Ind. Production Index :									
Durable	201	274	192	213	210	221	222	223	222
Non-Durable	142	166	164	172	173	177	176	173	173
Minerals	125	137	136	136	136	146	146	147	141
Manuf. Orders—Index[5]	203	189	211	234	236	240	253	249	240
Manuf. Inventories :									
Index[5]	158	164	203	200	204	209	213	217	221
Wholesale Price Index :									
Farm Products	108	169	198	224	222	217	224	240	233
Foods	105	134	165	209	203	198	205	212	205
All others	110	123	136	148	152	157	158	162	163
Cost of Living Index	105	128	139	152	154	153	153	156	156
Facty. Av. Hrly. Earngs.									
cts.	73	102	108	114	115	116	117	118	119
Imports : Total, Mill. $	279	344	410	481	536	533	435	444	512
from Europe, Mill. $	24	...	66	76	89	76	60	50	...
Exports : Total ,Mill. $	427	820	812	987	1097	1116	1153	1327	1296
to Europe, Mill. $	128	...	342	390	361	437	457	484	...
Lend-Lease Exports,									
Mill. $	61.7	463	54.5	8.6	7.2	8.4	3.5	1.7	...

Sources : *Bureau of the Census* for Unemployment ; *U.S. Department for Commerce* for Income Payments, Consumer Expenditures, Farm Marketings, Manufacturer's Orders and Inventories, and Foreign Trade ; *U.S. Department of Labor* for Employment, Prices and Wages ; *Federal Reserve Board* for Dept. Store Sales, Building Contracts and Ind. Production.

[1] All index numbers, except those of prices and of manufacturer's orders and inventories, are adjusted for seasonal variations.

[2] Partly provisional.

[3] All employees in non-agricultural establishments, unadjusted figure.

[4] Value Index deflated with the (Engineering News Record) Index of Construction Costs.

[5] 1939=100.

TABLE II. UNITED KINGDOM[1]

	Unit	Monthly Averages 1938	1945	1946	1946 Dec.	1947 Jan.	Feb.	Mar.	Apr.	May
Production of :										
Coal (Wkly. Av.)	Mill. tons	4.4	3.5	3.6	3.6	3.7	3.8	3.8	3.7	3.8
Steel (Wkly. av.)	1,000 tons	200	227	244	236	240	206	196	236	244
Cement	1,000 tons	643	338	548	517[2]	550[3]	192[2]	366[2]	601[3]	534[2]
*Bricks	Millions	650	102	288	353	379	247	277	349	395
Passenger Cars	Thousands	28.0	1.4	18.3	26.8	25.0	9.9	22.1	24.2	27.5
Comm. Vehicles	Thousands	8.8	10.2	12.2	13.2	13.2	5.8	11.3	12.3	14.3
Merch. Vessels[4]	Mill. gross tons	1.0	1.46	1.76	1.76	1.80	1.76	1.80	1.83	1.86
Electricity	1,000 Mill. kwh	2.0	3.1	3.4	4.4	4.7	3.7	4.0	3.4	3.1
Gas (weekly av.)	Mill. therm	31.9	39.1	42.4	50.2	50.8	53.3	50.9	43.5	39.9
*Perm. Houses[5]	Thousands	30.0	0.22	4.12	9.00	7.95	3.84	5.98	8.74	10.58
*Employmt: Total[6]	Millions	17.9	16.3	17.3	18.0	18.1	...	18.0	18.2	18.3
*Manuf. Ind.	Millions	6.8	6.8	6.6	7.0	7.0	...	7.0	7.0	7.0
*Manuf. Exports	Millions	1.0	0.41	1.31	1.46	1.48	...	1.47	1.48	1.49
*Unemployment[3]	Thousands	1,688	103	359	363	401	1,874	765	427	332
*Retail sales (wkly.)	1938=100	100	116	137	169	133	135	148	148	156
Wholesale Prices										
Food and Tobacco	,,	100	163	163	161	161	163	163	168	169
Ind. Prod.	,,	100	169	178	186	189	191	191	193	196
Cost of Living	,,	100	130	130	131	131	130	131	130	130
Weekly Wage Rates	Sept. '39=100	...	150	162	165	165	165	166	166	167
Ret. Imports	£ Mill.	77	92	108	117	121	113	130	147	153
U.K. Exports	,,	39	33	76	83	91	76	83	83	90
Terms of Trade[8]	1938=100	100	93	95	93	94.5	95	96	94	93

Sources : Monthly Digest of Statistics ; Ministry of Labour Gazette ; Board of Trade Journal.

[1] Figures for items marked * refer to Great Britain.

[2] Four weeks. [3] Five weeks.

[4] Tonnage under construction at end of period, 100 gross tons and over. [5] Completed.

[6] Including employers and self-employed, but excluding Forces, Auxiliary Services, Civil Defence, Police and private domestic service. All annual employment figures refer to mid-year.

[7] Number of insured workers registered as wholly unemployed or temporarily stopped. Mid-yearly or mid-monthly figures.

[8] Ratio of export prices to import prices.

TABLE III. FRANCE

	Unit	Mthly. Averages 1938	1945	1946	1946 Nov.	Dec.	1947 Jan.	Feb.	Mar.	Apr.
Production of :										
Coal[1]	Mill. m. tons	4.0	2.9	4.1	4.2	4.2	4.6	4.3	4.6	4.2
Electricity	000 Mill. kwh	1.5	1.4	1.8	2.0	2.2	2.2	2.0	2.2	2.1
Steel	Mill. m. tons	518	134	369	460	457	486	449	498	508
Cement	000 m. tons	290	127	281	352	361	284	262	308	316
Comm. Vehicles	Thousands	3.3	2.7	5.2	5.8	5.2	6.6	6.4	6.8	6.6
Passenger Cars	,,	15.2	0.1	2.5	4.0	3.9	5.0	4.9	6.1	6.5
Cotton Fabrics	000 m. tons	12.1	2.7	8.4	9.6	9.6	10.3	10.5	11.7	...
Building plans[2]	000 cbm	706	155	413	706	455	715	600	...	...
Wagon loadings (daily)	Thousands	41	17	30	36	33	33	35	35	36
Employment[3]...										
Numbers	1939=100	...	88	93	...	...	97	...	...	...
Hours worked	,, ,,	...	92	99	...	...	104	...	...	...
Wholesale prices[4]	1938=100	100	375	648	806	842	867	882	850	837
Retail prices[5]	,, ,,	100	393	645	856	865	856	858	838	837
Imports	000 Mill. frs.	3.8	4.6	19.5	19.2	23.0	23.7	25.8	27.4	27.6
Exports	,, ,, ,,	2.5	0.9	8.5	14.5	16.1	14.5	17.1	16.3	20.6

Source : Bulletin de la Statistique Générale de la France.

[1] Incl. lignite. [2] In Paris and 98 towns. [3] Wage-earners. Quarterly figures, base : April 1939=100. [4] 1938 weights. [5] Retail prices in Paris of 34 articles.

TABLE IV. BELGIUM.

	Unit	Mthly. Averages			1946		1947			
		1939	1945	1946	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Production :										
Total Industry	1936–38=100	95	34	80	89	88	95	85	90	...
Coal	Mill. m. tons	2.5	1.3	1.9	1.96	1.89	2.15	1.96	2.20	2.18
Steel	000 m. tons	259	61	191	220	223	231	206	229	234
Cement	,, ,, ,,	213	54	158	209	182	181	123	145	217
Electricity	Mill. KWH	466	382	520	582	618	646	579	604	579
Textile Ind.	1938=100	113	38	92	106	106	114	104	115	116
Paper Ind.	,, ,,	120	26	109	118	106	124	118	125	141
Buildg. Activity[1]	Thousands	2.2	1.1	2.4	2.6	2.7	2.2	1.6	...	...
Unemployment[2]	,,	195	145	67	43	81	90	131	94	51
Retail Prices	1936–38=100	106	329	334	327	333	333	332	330	331
Imports	000 mill. frs.	1.6	1.1	4.4	6.6	6.1	6.0	5.3	6.1	6.5
Exports	,, ,, ,,	1.8	0.3	2.5	3.1	4.0	2.7	4.3	4.8	5.3

Source : Institut National de Statistique ; Banque Nationale de Belgique.

[1] Number of units newly constructed and reconstructed. [2] Daily of registered unemployed.

TABLE V. NETHERLANDS.

	Unit	Mthly. Averages			1946		1947			
		1939	1945	1946	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Production :										
Coal	000 m. tons	1,072	424	693	801	718	833	803	885	818
Electricity	Mill. KWH	223	93	225	289	294	300	272	285	287
Bricks	Mills.	91	7.6	45.3	63.2	66	70.4	59.3	...	...
Cement	000 m. tons	45	21.2	33.6	36.6	27.9	9.0	17.5	25.6	51.3
Butter	000 m. tons	9	3.2	4.4	4.1	3.0	2.3	1.8	2.4	...
Cheese	000 m. tons	10.1	3.1	5.4	3.7	2.4	1.5	0.6	2.4	...
Unemployed[1]	000's	235.6	...	53.1	39	47	51.5	55.8	...	...
Retail trade[2]	1938=100	113	...	151	232	190	168	143	154	...
Wage rates :										
Industry	1938–39=100	101	131[3]	165	165	165	165	166	165	...
Agriculture	,, ,, ,,	100	225[4]	241	241	241	241	241	...	...
Imports	Mill. fl.	126	...	179	239	223	201	313	256	...
Exports	,, ,,	81	16	65	126	128	108	97	138	...

Source : Central Bureau Voor De Statistiek ; Rotterdamsche Bankvereeniging.

[1] Registered wholly unemployed excluding public relief workers.

[2] Value of turnover of department and chain stores. [3] Revised figure. [4] December.

TABLE VI. DENMARK

Index Nos. 1938=100	Unit	Monthly Averages			1946	1947			
		1939	1945	1946	Dec.	Jan.	Feb.	Mar.	Apr.
Production :									
Industrial	Index	105	79	96	105	106	105	98	99
Butter	000 m. tons	15.2	11.0	11.7	9.7	9.9	8.6	10.1	...
Meat (Pork)	,, ,, ,,	27.4	15.1	16.9	14.8	15.7	12.7	14.6	...
Electricity	Mill. KWH	69[1]	76	88	112	119	108	101	102
Wholesale Prices	Index	105	190	188	198	200	201	200	201
Cost of Living	,,	101	159	158	...	159	...	...	162
Imports	Mill. Kr.	145	58	236	315	198	166	157	...
Exports	,, ,,	132	75	134	194	170	104	115	...

Source : Danmarks Statistics, Statistiske Efterretninger ; United Nations, Monthly Bulletin of Statistics.

[1] 1938.

TABLE VII. NORWAY

Index Nos. 1938=100 ...	Unit	Monthly Averages 1939	1945	1946	1946 Dec.	1947 Jan.	Feb.	Mar.	Apr.
Ind. Production ...	Index	106	69	100	107	109	119	114	115
Electricity gen. ...	Mill. KWH	851	820	938	1,113	1,161	1,052	1,004	942
Retail Turnover ...	Value Ind.	105	120	182	261	175	175	...	...
Cost of living ...	Index	102	156	160	161	160	161	161	161
Imports	Mill. Kr.	114	100	183	358	275	273	308	351
Exports	,, ,,	67	27	100	108	109	109	108	131

Source : Central Bureau of Statistics.

TABLE VIII. SWEDEN

Index Numbers 1939=100	Unit	Monthly Averages 1939	1945	1946	1946 Dec.	1947 Jan.	Feb.	Mar.	Apr.
Ind. Production ...	Index	100	85	103	105	105	104	104	106
Ind. Employment	,,	100	101	116	112	115	...	...	...
Steel Production	000 m. tons	99	100	101	110	113	97	101	...
Cost of Living ...	Index	100	149	149	150	152	152	153	153
Imports	Mill. Kr.	204	91	261	331	371	334	279	355
Exports	,, ,,	157	147	210	237	222	119	139	220

Source : Index, Svenska Handelsbanken ; Quarterly Review, Skandinaviska Banken ; United Nations, Monthly Bulletin.

TABLE IX. SWITZERLAND

Index Nos. 1938=100	Unit	Monthly Averages 1938	1945	1946	1946 Dec.	1947 Jan.	Feb.	Mar.	Apr.
Employment :	Quart.								
All Industries ...	Index	100	110	123	128	...	...	131	...
Building	,,	100	89	108	103	...	...	110	...
Metal Ind. ...	,,	100	122	138	142	...	...	144	...
Chemical Ind. ...	,,	100	130	157	163	...	...	168	...
Textile	,,	100	76	87	92	...	...	94	...
Food Ind. ...	,,	100	106	120	127	...	...	125	...
Electricity gen.[1] ...	Mill. KWH	448	666	696	608	564	467	595	675
Building permits :									
New Flats ...	Numbers	703	752	1,043	1,166	1,166	946	1,122	1,362
Factories[2] ...	,,	93	167	267	273[3]	...	...	274[4]	...
Tourism[5]	Thousands	630	264	506	491	598	544	481	551
Cost of Living ...	Index	100	152	152	154	154	154	154	154
Imports	Mill. frs.	134	102	285	367	330	312	391	405
Exports	,, ,,	110	123	223	264	239	250	283	258

Source : Schweiz. Nationalbank ; Département Fédéral de l'Economie Publique.

[1] Public power stations. [2] Incl. extensions and structural changes.

[3] Monthly average, 4th quarter. [4] Monthly average, 1st quarter.

[5] Number of nights spent by foreign tourists in Swiss hotels.

TABLE X. ITALY.

	Unit	Monthly Averages 1939	1945	1946	1946 Nov.	Dec.	1947 Jan.	Feb.	Mar.
Production :									
Electricity	000 Mill. KWH	1.3	0.9	1.3	1.3	1.3	1.2	1.0	1.3
Steel ...	000 m. tons	189	34	...	...	...	...	...	...
Coal Imports ...	,, ,, ,,	1,100[1]	...	353[2]	334	306	350	568	505
Cost of Living[3]	1938=100	...	...	...	...	...	3,663	3,723	3,829
Imports[4] ...	000 Mill. lire	0.9	...	...	8.9	...	19.3	22.3	...
Exports ...	,, ,, ,,	0.9	...	...	10	...	13.7	12.7	...

Source : Instituto Centrale di Statistica ; United Nations, Monthly Bulletin of Statistics.

[1] Average 1935, 1937 and 1938.

[2] Average April-December. [3] New Index. [4] Incl. U.N.R.R.A.

TABLE XI. FINLAND.

Index Nos. 1939=100	Unit	Monthly Averages 1939	1945	1946	1946 Nov.	Dec.	1947 Jan.	Feb.	Mar.
Production :									
Home Ind.	Index	100	56	74	81	86	77	100	91
Export Ind.	,,	100	51	69	75	76	81	82	85
Electricity	Mill. KWH	259	247	244	265	260	270	242	254
Cement (Consmp.)	Index	100	52	60	...	89	...	...	93
Wholesale Prices	,,	100	365	571	600	604	601	605	633
Cost of Living	1938–9=100	101	282	450	467	468	471	482	524
Imports	Mill. Mark.	631	572	2,027	2,274	2,538	2,825	2,304	1,138
Comm. Exports	,, ,,	643	436	1,920	2,907	2,560	1,961	1,170	783
Reparation Deliv.	,, ,,	...	585	731	529	1,278	519	636	784

Source : Unitas, Quarterly Review of Trade Conditions in Finland ; Monthly Bulletin, Bank of Finland.

TABLE XII. POLAND.

	Unit	Mthly. Averages 1938[1]	1945	1946	1946 Nov.	Dec.	1947 Jan.	Feb.	Mar.	Apr.
Production :										
Coal	Mill. m. tons	3.2	2.0	3.9	4.5	4.2	4.5	4.1	4.8	4.7
Pig Iron	000 m. tons	74	21	61	60	56	55	53	64	...
Steel	,,	120	45	102	112	111	110	95	121	...
Cement	,,	143	33	117	107	132	56	54	...	...
Glass	,,	2.1	3.5	3.4	3.8	4.4	...	...	...	...
Paper	,,	17.1	3.4	12.4	14.7	15.1	...	...	...	...
Electricity ...	000 KWH	319	418	476	556	578	580	...	...	...
Cost of living[2] ...	Index[2]	...	77[3]	96	111	116	118	119	125	129

Source : Central Statistical Office of the Republic of Poland.

[1] Pre-war frontiers.

[2] At Warsaw ; base : April, 1945=100. The calculation is based on free-market prices supplied by the Municipality.

[3] Average April-December.

TABLE XIII. CZECHOSLOVAKIA.

	Unit	Mthly Averages 1937	1945	1946	1946 Nov.	Dec.	1947 Jan.	Feb.	Mar.	Apr.
Production :										
Coal	000 m. tons	1,398	952	1,181	1,272	1,176	1395	1329	1438	1371
Electricity ...	Mill. KWH	334	341	464	554	537	571	537	567	527
Pig Iron	000 m. tons	140	48	80	96	98	113	103	122	116
Steel	,,	192	79	139	169	146	191	172	205	197
Cement	,,	106	...	77	95	53	...	...	...	...
Wh'sale Prices[1] ...	Jan.-March 1939=100	...	154	284	302	301	301	298	300	...
Cost of living[2] ...	Jan.–June 1939=100	...	168	305	303	305	306	309	309	...
Imports	Mill. Kr.	915	76[3]	853	1349	1788	1529	1512	1965	2262
Exports	,, ,,	996	49[3]	1195	1869	2670	1938	1708	1814	2452

Source :

[1] Bohemia, Moravia and Silesia ; from January, 1946, some products of Slovakia.

[2] At Prague. [3] May to December.

TABLE XIV. HUNGARY.

	Unit	Mthly. Averages 1937	1938	1945	1946	1946 Nov.	Dec.	1947 Jan.	Feb.	Mar.
Production of :										
Coal	000 m. tons	76	87	58	60	69	67	82	75	81
Lignite	,, ,,	671	693	343	466	561	518	628	567	643
Pig Iron	,, ,,	30	28	2	13	22	18	16	18	23
Bauxite	,, ,,	44	45	...	8	13	9	10	...	...
Petroleum	,, ,,	0.2	3.6	58	57	53	55	55	48	53
Wagon loadings	Thousands	108	114	...	47	71	57	53	...	...
Imports[1]	Mill. fl.	140	119	...	35	57	59	65	59	...
Exports[2]	,, ,,	171	151	...	41	81	94	63	47	...

Source : Office Central Hongrois de Statistique.

[1] Ecluding U.N.N.R.A. imports.

[2] Excluding reparation deliveries.

TABLE XV. BULGARIA

Index Nos. 1939=100	Unit	Monthly Averages 1939	1945	1946	1946 Oct.	Nov.	Dec.	1947 Jan.	Feb.
Industrial Prodctn. :	Index	100	106	116	150	134	117	94	104
Investment Goods	,,	100	81	115	125	131	109	70	85
Food, Drink, Tob.	,,	100	42	99	243	146	80	50	55
Other Cons. Ind.	,,	100	112	117	135	132	125	106	116
Electy. Generated	Mill. KWH	22	33	36	40	41	44	38	37
Wholesale prices	Index	100	550	627	656	667	667	687	693
Cost of Living	,,	100	509	573	584	597	601	626	640
Imports	Mill Leva	433	485	1,460	1,523	1,145	3,254	1,080	1,200
Exports	,,	505	1,019	1,245	2,013	823	1,989	1,364	720

Source : Direction Générale de la Statistique, Bulletin Mensuel (Sofia).

TABLE XVI. GERMANY : BRITISH ZONE.

	Unit	Monthly Averages 1936	1946	1946 Nov.	Dec.	1947 Jan.	Feb.	Mar.	Apr.
Ind. Production :	1936=100	100	31	35	30	28	27	30	33
Prod. Goods[1]	,,	100	36	41	35	31	30	33	...
Cons. Goods	,,	100	21	24	20	18	18	22	...
Prod. of :									
Coal (daily)	000 tons	390	178	192	198	245	227	233	210
Steel	,,	1,156	194	207	177	149	163	217	212
Cement	,,	445	107	107	78	75	64	56	...
Potash	,,	31	17.8	20.4	15.7	14.6	8.7	1.7	...
Cotton Yarn	,,	10.5[2]	1.7	2.1	1.8	2.0	2.1	2.4	2.4
Imports	Mill. £	...	7.2	...	...	...	...	...	...
Exports	Mill. £	...	2.9	2.8	2.6	2.1	2.0	2.4	2.5

Source : Statistical Bulletin of the Control Commission for Germany (British Element).

[1] Incl. investment goods (iron and steel, foundry products, vehicles, building materials, etc.) and producer goods for general requirements (coal, oil, gas, electricity and chemicals).

[2] Incl. some staple fibre.